

Syracuse University

SURFACE

School of Information Studies - Dissertations

School of Information Studies (iSchool)

5-2013

The Public Library as Health Information Resource?

Mary Grace Flaherty
Syracuse University

Follow this and additional works at: https://surface.syr.edu/it_etd



Part of the [Library and Information Science Commons](#)

Recommended Citation

Flaherty, Mary Grace, "The Public Library as Health Information Resource?" (2013). *School of Information Studies - Dissertations*. 82.

https://surface.syr.edu/it_etd/82

This Dissertation is brought to you for free and open access by the School of Information Studies (iSchool) at SURFACE. It has been accepted for inclusion in School of Information Studies - Dissertations by an authorized administrator of SURFACE. For more information, please contact surface@syr.edu.

ABSTRACT

Public libraries have adapted a variety of services into their institutional missions, including: promoting early literacy, publicly available Internet access, children's summer reading programs, and the dissemination of tax forms. Libraries are disproportionately rural institutions, often serving people with limited health care access. Thus, by public demand they have evolved to become important resources for rural health consumers to acquire information. Some public libraries have approached this role by subscribing to health databases, or by providing a link on their homepage to a health resource such as MedlinePlus, but most have undertaken little organizational change to meet growing patron demand.

This body of research has attempted to understand the circumstances under which three consumer health efforts arose within or via public libraries, using two strands of inquiry to understand the process of patron health information provision. In the first strand, public libraries in rural Upstate New York were visited, observed and interviewed to understand how, and how well, health reference queries were handled. This assessment of practice was also conducted in a sample of visits in Delaware libraries. There were differing levels of staff knowledge of health information resources in all settings. In the second strand, three unique and dissimilar organizational models for consumer health information provision were studied, using institutional theory as a framework and employing a mixed methods approach.

Consumer health provision efforts in Upstate New York and Delaware appear to have interacted in contrasting ways with the affiliated MLS librarians. In particular, print materials on library shelves were the most frequent source of outdated and questionable health information; in Delaware a heavier reliance on online resources led to more instances of authoritative resource provision. In all three examples studied, the perception that medical librarians were of a different

sub-culture than public librarians arose and may have created impediments to program effectiveness and sustainability. These findings have implications for library practice, training, and instruction and point to a need for further understanding of the role of public libraries and library staff in providing health information in their communities.

THE PUBLIC LIBRARY AS HEALTH INFORMATION RESOURCE?

by

MARY GRACE FLAHERTY

B.S., Pennsylvania State University, 1982

M.S. Johns Hopkins University, 1986

M.L.S. University of Maryland, 1988

DISSERTATION

Submitted to the Graduate School at Syracuse University
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy in Information Science and Technology

SYRACUSE UNIVERSITY
Syracuse, New York

May, 2013

Copyright 2013 Mary Grace Flaherty

All Rights Reserved

Acknowledgments

In the final phases, it may seem that the dissertation is a solitary process, but this research would not have been completed without the continuous support of many people. Carsten Østerlund, my advisor, was infinitely supportive and patient throughout. His good humor and enduring friendship made the entire process more enjoyable. Carsten always kept my best interests in mind, for that I am extremely and sincerely grateful. Thanks also to my committee members, Cat Arnott Smith, Barbara Kwaśnik, and Murali Venkatesh for their input, guidance, and good will, and to Jian Qin for serving as the internal reader at a moment's notice.

From my first visit to Syracuse to discuss returning to school to the submission of my final document, Jeff Stanton offered helpful advice and unflagging support. I am also grateful to Nienke Dosa and Chris Morley for welcoming me at SUNY Upstate Medical University, and for providing opportunities for collaboration along the way. Thanks also to all the interviewees, library directors and managers for their time and willing cooperation. The Institute for Museum & Library Services provided funding support throughout, making the research possible.

Many friends, family members, and fellow students kept track of my progress, and cheered me along. Thanks to those who infused support, laughter and good cheer ensuring there was some fun in process: Nadine Fernandez, Eva and Lucia Fernandez Østerlund; Margaret J. Flaherty; the Popcorn Club (Fred Bateman, Suzanne Bloom, Eileen and Rick Schlag); Martin Bone; Barbara Schramm; Veronica Maidel, Dima Epstein and baby Shira; Eamon, Maureen, John and Terry C. Murphy. Last, but not least, there is always Les, whose tireless efforts to make the world a more just and peaceful place continue to inspire me; thanks for lighting up my world and joining me on the journey.

Table of Contents

CHAPTER 1 PROBLEM STATEMENT	1
1.1 Background	1
1.2 Health information and rural public libraries	3
1.3 Research approach	4
1.4 Theoretical perspective	5
1.5 Summary	7
CHAPTER 2 THEORETICAL FRAMEWORK	9
2.1 Introduction	9
2.2 Institutions, Logics, and Institutionalization	10
2.2.1 New and Old Institutionalism	13
2.2.2 The Organizational Field	14
2.3 Public Libraries in American History and Society	28
2.3.1 Democratic Ideals	30
2.3.2 Public Library Service Provision	33
2.3.3 Public Libraries and Consumer Health Information	35
2.4 Summary	38
CHAPTER 3 METHODS	41
3.1 Introduction	41
3.2 Health Information Resource Use – Three Investigations	41
3.2.1 Pilot Study	43
3.2.2 Comparison of Libraries in Two New York State Systems	47
3.2.3 Delaware Statewide Initiative	49
3.3 Exploring Three Approaches to Health Information Provision	50
3.3.1 Case Study of the Consumer Health Information Center (CHIC)	51
3.3.2 Data Collection and Analysis	54
3.3.3 Assuring Validity	59
3.4 Summary	62
CHAPTER 4 ASSESSING PRACTICE: HEALTH QUERIES	63
4.1 Introduction	63
4.2 Health Information Resource Use – Preliminary Investigation	64
4.2.1 Reported (Phone Survey) vs. Actual Practices (Library Visits)	66
4.2.2. Resources provided during Library Visits	67
4.2.3 Follow-up Phone Survey	69
4.3 Comparison of health information provision in two library systems	70
4.3.1 Background Information on the Twenty Libraries	72
4.3.2 Results of Visits in Two Systems	73
4.3.3 Phone Surveys in Two Systems	78
4.3.4 MLS Level Staff vs. Non-MLS Level Staff: Effect on Information	81
4.3.5 Summary of comparison of two systems	85
4.4 Health Information provision in another State	86
4.4.1 Background	86
4.4.2 Results of Library Visits in Delaware	87

4.5 Comparison of all visits in two states	89
4.6 Summary	93
CHAPTER 5 THREE APPROACHES TO HEALTH INFO. PROVISION	97
5.1 Introduction	97
5.2 Case Study: The CHIC	98
5.2.1 Background	100
5.2.2 Establishment of the CHIC	105
5.2.3 Health Information Services Partnership	108
5.2.4 Health Information as Integrated Library Service	110
5.2.5 Organizational field members	116
5.2.6 Results of Interviews with Library Directors served by CHIC	126
5.3 Imitation in another public library	130
5.4 Another model: Statewide initiative	137
5.4.1 Background and Establishment of the statewide initiative	138
5.5 Summary	147
CHAPTER 6 DISCUSSION	149
6.1 Introduction	149
6.2 Three approaches to health information: Differences in service provision	150
6.3. Institutional context of the three approaches	156
6.3.1 The Consumer Health Information Center in the Central Library: New York	156
6.3.2 Inspired by the CHIC: Health Information Provision in one Public Library	163
6.3.3 Delaware Statewide Initiative	165
6.3.4 CHIC and Delaware: organizational field members and isomorphic pressures	167
6.4 Three different approaches = Three different models	169
6.4.1 The Consumer Health Information Center	169
6.4.2 Imitation of the Consumer Health Information Center in nearby setting	175
6.4.3 Statewide Consumer Health Initiative	177
6.5 Public library function	183
6.5.1 Individuals and their underlying logics	186
6.6 Summary	199
CHAPTER 7 CONCLUSION	203
7.1 Contributions	205
7.2.1 Implications for public library practice	205
7.2.2 Recommendations	209
7.2 Limitations	212
7.3 Future research	214
APPENDIX A DEFINITION OF TERMS	217
APPENDIX B PROTOCOLS	220
APPENDIX C INTERVIEW GUIDES	223
REFERENCES	225
VITA	235

List of Figures

Figure Number	Figure Title	Page Number
3.1	Three studies to assess library practice	42
3.2	Three approaches to consumer health information provision	50
4.1	Primary resource for health queries – Phone survey, pilot	65
5.1	Beginning Phase, CHIC creation	117
5.2	Operational Phase of CHIC	119
5.3	Maintenance Phase of CHIC	121
6.1	Establishment of the CHIC	171
6.2	Consumer health initiative in nearby library (inspired by CHIC)	176
6.3	Delaware Statewide Consumer Health Initiative	179

List of Tables

Table Number	Table Title	Page Number
3.1	Rural-Urban Continuum Codes	44
3.2	Interviewees in All Investigations	55
4.1	Reported vs. Actual Practice in Primary Resource Used, Pilot study	67
4.2	Print Resources provided during Library Visits, Pilot study	68
4.3	First Reported vs. Reported for Specific Query in Follow-up Survey for Primary Resource Used, Pilot study	69
4.4	Primary resource consulted in Libraries in 2 Systems	74
4.5	Print resources provided in Library Visits in the 2 Systems	75
4.6	Annual Reference Questions in Both Systems	78
4.7	Reported vs. Actual Practice in Resource Utilization - Libraries in system without CHIC	79
4.8	Reported vs. Actual Practice in Resource Utilization - Libraries in system with CHIC	80
4.9	Primary means of Learning about Health Information for Library Directors in 2 Systems	81
4.10	Primary Resource Provided in Both Systems - Quality of Information	82
4.11	Libraries without CHIC - Quality of resource provided and MLS level staff	82
4.12	Results of Library Visits in System without CHIC	83
4.13	Libraries with CHIC - Quality of resource provided and MLS level staff	84
4.14	Results of Library Visits in System with CHIC Resource	85
4.15	Resource provision in Library Visits in Delaware	87
4.16	Delaware Library Visit Results – Type of information provided and Level of Staff	89
4.17	All Library Visits and Authoritativeness of Information	90
4.18	Print Resources provided All Visits - Authoritativeness of Information	91

4.19	All Library Visits and Staff Level	92
4.20	Comparison of Health Resource Quality for Libraries in Both States without MLS level staff	92
4.21	Comparison of Health Resource Quality for Libraries in Both States with MLS level staff	93
5.1	Annual Reference Statistics for CHIC – from CHIC staff	123
5.2	Method of Patron contact with CHIC – from CHIC staff	123
5.3	Method of Information delivery by CHIC – from CHIC staff	124
5.4	Most important Library function in community - as identified by library director and director's educational background	127
5.5	Knowledge of CHIC by Library Directors and referral patterns	128
5.6	Professional memberships of Library Directors in Ten Libraries served by CHIC	129
5.7	Funding requests by the Delaware State Library to the Dept. of Health & Social Services for Consumer Health Information Services	141
5.8	List of Actors discussed in Chapter 5	148
6.1	Comparison of Field member involvement in creation of initiatives and isomorphic pressures	168
6.2	Overall Comparison of Three Approaches to Consumer Health Information Provision	180

Chapter 1 Problem Statement

1.1 Background

Try typing “cure for swollen lymph nodes” in Google. When this search was performed in early 2013, the first result was earthclinic.com, which advised apple cider vinegar. While the site contains a highly visible disclaimer advising information seekers to consult with their health care providers, the most recent post on the topic dated 12/16/12 was the question:

"Had tooth with abcess pulled 6 days ago, now have pain in groin lymph. On antibiotics to help healing of tooth site per dentist. Just starting ACV after reading your site. Wondering if I can stop using med to make ACV more effective Thanks for this site."

No replies had been posted to the query six weeks later, but this is just one example of how access to health information is radically changing how individuals manage a fundamental aspect of living: their health.

Patients and health care consumers have more opportunity than ever before to obtain information regarding all aspects of their health care, largely because of ever increasing electronic access. In 2012, approximately 72% of American Internet users searched for health information online; in fact, the Internet has been characterized as the “de facto second opinion” for health information seekers (Pew Internet and American Life Project, 2013). It is unknown how many might use the Internet as their “de facto” first (or only) opinion in health information situations.

Health care consumers aren’t always adept at finding accurate and reliable information, however. The majority of health information seekers (77%) start with a search engine and don’t check the date and source of the information they obtain (Pew, 2008, 2013). Additionally, once

individuals encounter health information, they may not have adequate knowledge to evaluate the authority and quality of health information that they do find (Eysenbach & Kohler, 2002). 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. The key here is "well informed." Patients who take an active role in their health care have been shown to have lower medical costs (Hibbard, Greene & Overton, 2013) and patients' taking the initiative to obtain their own information has been linked with improved outcomes (Roter, 2000). With an ever-increasing emphasis on self-care and patient/consumer responsibility for health, and an escalating amount of all types of information available, some 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 and researchers) just a short time ago are often now free and widely available. This has opened up a world of information to anyone with a computing device and an Internet connection. Not everyone has direct access; however, many turn to their local public libraries for help, and utilize the facilities for all kinds of information seeking (Becker et al., 2010). Over the past ten years, visits and circulation have both increased in public libraries; in fiscal year 2009, there were 1.59 billion visits to U.S. public libraries (Institute of Museum & Library Services, 2011). In 2011, 20% of Americans ages 16 and older had used a public library to get research help from a librarian (Pew, 2012).

Many studies have identified public libraries as likely settings for health information provision (Becker et. al., 2010; Calvano & Needham, 1996; Guard et al., 2000; Martin & Lanier,

1996; Spatz, 2000), but there is a dearth of information with regard to the actual information patrons receive when they do visit a public library with health reference queries. Thus, the motivation behind this research is a better understanding of how public libraries engage with and fulfill the consumer health needs of their communities.

1.2 Health information and rural public libraries

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 (Pearlmutter & Nelson, 2011). In the case of rural communities, the public library may be the sole local information resource for health information provision. The majority of these libraries are not professionally staffed, and there are differing levels of expertise when it comes to assessing health information resources. In addition, 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). Therefore, rural residents may have limited opportunities for health information exchange.

In terms of health status, residents in rural areas 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) and a higher prevalence of obesity than their urban counterparts (Befort, Nazir & Perri, 2012). 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, p. 1).

Studies have demonstrated that patrons are using public libraries for their health information needs (Linnan et al., 2004; Flaherty & Roberts, 2009); but few public library staff are trained to find and evaluate medical information (Gillaspy, 2000; Smith, 2011). Further, there has been little research on the actual quality of information supplied in health reference encounters in the public library setting (Flaherty & Luther, 2011).

Different avenues for maintaining health and preventing illness are gaining interest in the health care arena, especially as cost of health care in the United States escalates. With the proliferation of access to all kinds of health information, public library staff can play a vital role in their communities as information navigators. As they consider and adapt service provision models, a better understanding of the organizational and institutional forces that affect public library function and approach to service will ensure that they are responsive to societal forces and their communities’ ever-changing needs for information.

1.3 Research approach

Throughout the United States, public libraries may be similar in their general functions. Because they are embedded in distinct locations, however, they can develop unique styles of interaction with their communities and approaches to service provision. Thus, while the overall services they provide may be similar, they’re not likely to be identical. This body of research includes two strands of inquiry. The first, an assessment of library practice, includes three empirical studies that were completed in 2010-2012, comprised largely of visits to public

libraries and interviews with library directors to explore consumer health information provision in rural Upstate New York and in the State of Delaware.

The second strand is an exploration of the organizational context of three different approaches to supplying health information that were uncovered during the library visits. These approaches included: a rural public library system-based approach with a consumer health information center (CHIC) in the central library, a self-standing attempt within a single public library, and a statewide initiative that sought to serve all the residents of Delaware. These different approaches provided an opportunity to better understand how the variant types of organizational commitment evolved. In this strand, to uncover the organizational factors that led to each of the approaches a variety of data collection techniques were employed including interviews, document analysis, and some unobtrusive observation.

1.4 Theoretical perspective

Public libraries are located in communities throughout the United States, and are well established institutions in American society. As such, there are many factors that influence their missions and functioning on a number of societal levels. If we consider the institutional level, historical beliefs and expectations of service play a role. On the organizational level, entrenched policies, professional norms and community assumptions have an effect on library service provision. On the individual level, different actors (e.g. staff, library board members, patrons) operate with their own underlying logics to exert influence on library function. To better understand the interactions of these levels and the process of organizational change, we can turn to the field of sociological institutionalism.

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 by sociologists 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 similar fashion as these institutions. To extend our knowledge of the function of the public library and its capacity for organizational change, I examined some elements of the organizational processes and institutional pressures identified by new institutionalists, using the theory to inform my research. Specifically, some of the elements that influenced organizational behavior (including the significance of the organizational field and actors’ underlying logics) and how those elements exerted institutional pressure were examined to provide insight into public libraries’ responses to their environments and communities with regard to health information service provision. On the individual and organizational levels, professionalization of librarians and library staff played a role in service provision, especially with regard to differences in role expectations and service to patrons, and was also examined.

The first step involved gathering empirical data of the “on-the-ground” practices of staff when they were presented with a specific health query. The second part of the inquiry included

the investigation of three differing approaches to health information provision to discover: what triggered these different approaches? What role did the different actors play? Did organizational field affiliation matter?

1.5 Summary

In the United States, it is likely public libraries will continue to play an important 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's 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. Public libraries are viewed as a logical place for provision of health information. In a recent report sponsored by the Institute of Museum & Library Services (IMLS), 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). If this partnership is going to be effective, there is a need for a more thorough understanding of how public library staff approach their roles as health information providers. Thus, the goal of this research is to impart a better understanding of the organizational factors that influence health information provision in public libraries.

The document continues with:

- Chapter 2 - explores the theoretical framework more thoroughly, with a discussion of institutional theory and how it can help to inform research in the public library setting.
- Chapter 3 attends to methodological issues and includes a discussion of data collection, procedures utilized for data analysis, and attempts to assure validity.

- Chapter 4 summarizes the results of the three separate studies employed to assess public library practice.
- Chapter 5 presents the results of the analysis of the three different approaches to health information provision, including the organizational contexts.
- Chapter 6 is a discussion of the overall findings of both strands of research.
- Chapter 7 concludes with the contributions and limitations of the research, practical implications and recommendations based on the findings, and future research opportunities.

Definitions of key terms, including: authoritative health information, central public library, consumer health information, director, MLS, public library, public library system, and rural library are included in Appendix A.

Chapter 2 Theoretical Framework

2.1 Introduction

Could one imagine visiting the public library for nutrition classes after being diagnosed with diabetes? For some individuals, this notion is likely to be a bit of a stretch. But why might this be difficult to imagine? Because institutions – and by this use of the term, I mean the norms, values and cultural rules that are at the heart of U.S. public libraries – legitimize some functions (e.g. children’s storytime or early literacy training) but not others. As tax supported organizations, public libraries have been part of the American landscape for over 160 years. They have a storied past in our mature democracy. Thus, the institutional “logics” that define the public library’s values and norms, in fact its public identity, are so entrenched in our public life and perceptions that any radical departure from generally accepted practices, such as offering nutrition or health classes, might be hard to imagine for some.

Public libraries in any community throughout the United States tend to be similar to one another, regardless of their locale or geographic location. We can turn to the field of sociological institutionalism and its knowledge to help explain this phenomenon. The similarity of organizations, identified as isomorphism, is largely due to the logics that underpin them and give organizations their recognizable social form. Through focusing on public libraries in the United States I will identify some of these pressures and how organizational change can occur. This chapter continues with a discussion of institutions, the organizational field, and three types of isomorphic pressures that can exert influence on organizations and individuals. A historical look at public libraries in the United States is presented, including their roots in democratic ideals and

how that might affect current service provision. The role of public libraries with regard to consumer health information provision closes out this chapter.

2.2 Institutions, Logics, and Institutionalization

One need not go far to find examples of institutions in society. The customs of marriage and 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 (2013) 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 and provides 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) attend to a broader perspective and state “they (institutions) are first and foremost products of human actions” (p. 28).

The term institution can signify a group or a social practice (or both); Selznick (1992) uses the example of the Catholic Church and the ritual of communion to illustrate this duality.

Institutionalization occurs then, when a social form

“takes on a distinctive character or function, becomes a receptacle of vested interests, or is charged with meaning... A developed institution is not readily limited to narrowly defined goals. It is valued for the special place it holds in a larger social system” (p. 233).

In other words, an institution is any practice, social phenomenon or organization that’s gone beyond its technical function to a state of value in and of itself. The factors that contribute to institutions becoming identified and established as thus are varied. The unique characteristics, quality and longevity of the practice, phenomenon or organization and how they add to the cultural scene, all play a role.

Institutions can be studied from different angles, as they tend to exist on three levels in society: as a cultural abstraction, as a social structure or organization, and as a group of actors or individuals working toward a common goal. Institutions have a variety of overlapping roles. They create expectations on the part of actors and help to manage those expectations and shape actions. They also typify actors and actions in keeping with those expectations. Institutions lend stability, patterns, and role categories, and respond to community needs by agents taking action. They contribute not only to the identity of professionals but they help to define our societal and individual identities as well. So in the case of the public library, staff have their own expectations and identities, as do community members and the patrons who utilize their services.

“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.” (Jepperson, 1991, 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” (ALA, 2011). Though some may identify them primarily as resource providers, they are not just for checking out books. Their longevity is tied to their perceived link with democratic values and freedom of speech. They are often intertwined with 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; as with schools and hospitals they evoke a strong impression for the majority of residents. Most residents and community members have a visceral reaction to and knowledge of the institution and can offer a description of what functions they assume the public library performs.

Public libraries do not operate in a vacuum; however, there are a number of factors that influence their missions and functioning. Historical beliefs and expectations of service play a role. Different actors, including (but not limited to) the staff, the library board, the community, professional organizations, governance structures and regulatory agencies, all exert influence on the organization. Public library personnel are socialized in culturally sanctioned ways of thinking and acting; this can be further legitimized through professional training and through mechanisms such as the MLS degree and/or membership in professional associations. Sanctioned ways of thinking and acting, sustained over a period of time, help to institutionalize the core logics of public libraries, the organizational forms within social structures, and the "on the ground" practices by staff. That is, these are auto-reinforcing, or put another way, "Work provides identities as much as it provides bread for the table" (Friedland & Alford, 1991, p. 234). Thus, the institution operates with a central logic that can constrain individuals and action, yet it can also provide opportunities for change (Thornton & Ocasio, 2008).

This concept of institutional logic has been concisely described as "the way a particular social world works" (Jackall, 1988, p. 112). Thornton and Ocasio (2008) extend this: "The institutional logics approach incorporates a broad meta-theory on how institutions, through their underlying logics of action, shape heterogeneity, stability and change in individuals and organizations" (p. 103). This approach calls for incorporating the study of all three levels of society: individuals, organizations, and institutions, rather than emphasizing one level over another in order to better understand organizational and institutional change (Thornton & Ocasio, 2008). This framework can allow for a broader, more holistic view of the institutional pressures that may contribute to stability and/or change in organizational settings.

2.2.1 New and Old Institutionalism

Institutional theorists have focused on differing aspects of institutions, and have approached the study of the effects and the process of institutionalization with different emphases. The focus in “old” institutional theory literature and applications was primarily related to individual agency and power. Intentionality, norms, and values were central themes (Hirsch & Lounsbury, 1997). Institutions were viewed from the perspective that, first, they were built and run by purposive people (Stinchcombe, 1997). Institutional change or action also played a central role in analyses of organizations (Hirsch & Lounsbury, 1997; O’Mahony, 2002). The new institutional theorists, on the other hand, tend to concentrate on and explore the stability and legitimacy of institutions. While the old institutional theorists have been characterized as being focused on action (e.g. change, values, social construction), the new institutionalists are described as being more concerned with the structure of organizations (e.g. outcomes, continuity, statics) (Hirsch and Lounsbury, 1997). The new institutionalists have studied and described how organizations achieve and maintain their equilibrium and why organizations in a field tend to grow similar (isomorphic) over time (DiMaggio & Powell, 1991).

Another basic difference between the two institutionalisms is how they view the environment (DiMaggio & Powell 1991). The proponents of old institutionalism characterized organizations as situated in local communities and looked at action that was concentrated there (Hirsch & Lounsbury, 1997). The new institutionalists view environments as having a broader realm and range of influence; environments are what provide blueprints for the structures of organizations. Indeed, environments “*constitute* local situations-establishing and defining their core entities, purposes, and relations” (Meyer, Ramirez, Frank & Shofer, 2007, p. 188; italics original). There is a greater emphasis on the wider systems of relationships and the societal

influences imposed upon organizations (Scott & Meyer, 1994). “Institutional theory focuses on processes of mutual influence among organizations” (DiMaggio, 1991, p. 267). Much has been written analyzing and comparing the two interpretations or forms of institutional theory, the old and new (see for instance: Barley & Tolbert, 1997; Hirsch & Lounsbury, 1997; O’Mahony, 2002; Scott, 1987; Selznick 1996; Stinchcombe, 1997; Wooten & Hoffman, 2008). I will turn now to one of the central concepts of institutional theory and one of the organizational aspects attended to by new institutionalists: the organizational field.

2.2.2 The 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, italics original). 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).

Similar to other’s descriptions, their representation of the field takes into account the sum of all of the relevant actors:

“a community of organizations that partakes of a common meaning system and whose participants interact more frequently and fatefully with one another than with actors outside of the field” (Scott, 1994, p. 207-208).

The conceptualization and study of the organizational field has evolved somewhat since its introduction, from its original focus on stability to allow for explanations of change. In the past, field level studies have generally focused on the outcomes of the organizational field as a specific entity. Now there are some scholars who recommend going beyond this approach to look at the organizational field as a mechanism, in order to better understand the processes that affect field members, their function, and their relationships (Davis & Marquis, 2005). To do this, we extend the original definitions of the field from a collective of organizations to the field as “a locale in which organizations relate to or involve themselves with one another” (Wooten & Hoffman, 2008, p. 138) or as a relational spaces where actors are provided with opportunities to interact with other organizational actors (Wooten, 2006). In order to understand these spaces, however, we have to begin with a consideration of the actors that might operate within an organizational field and the institutional pressures that might influence how the field operates.

2.2.2.1 Institutional Isomorphism

The field can exert pressure on organizations, making them similar to one another.

DiMaggio and Powell (1991) assert 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...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).

There are 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) (DiMaggio & Powell 1991).

Coercive isomorphism is due to both formal and informal pressures placed upon organizations by the organizations to which they are accountable, or 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. public access computers or self-service check-out in libraries). The second type of isomorphism, 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). The third type of isomorphism is normative isomorphism and stems primarily from professionalization. Two qualities in particular play a role in normative isomorphism: a. formal education, leading to the legitimacy of scholars, and b. the increase in professional networks that allow for rapid diffusion of ideas and models (DiMaggio & Powell, 1991).

If we can first identify potential members of the organizational field, it is easier to study what effect, if any, institutional pressures play in the role of organizations’ function and how change might occur. Depending upon the organization, some considerations when examining the organizational field might also include differences by region or state, or areas within states. There also may be unique local contingencies that affect the organization’s function. To demonstrate the concept, here I will consider public libraries in New York State. We can identify

seven possible primary groups or categories of actors that might be involved in or members of 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 – State and Regional Library Resource Councils
 - NY State – Library systems
 - 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
 - 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 (e.g. Kiwanis, Rotary)
 - Historical societies, garden clubs, etc. (*may be physically based at library facility*)
- Library staff
 - Director/Manager
 - Other staff (all levels, professional and paraprofessional)
 - 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. The vertical field includes those entities with hierarchical and formal influence, such as the agencies that exert oversight or governance over public libraries, or the bodies that are responsible for regulations and laws. These entities can exert direct, formal coercive pressure on organizations. 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, 2011). 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' operational practices 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 if they made that choice, they forfeited their eligibility for any federal funds for Internet and phone support (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, and in this way federal agencies can exert coercive and mimetic institutional pressures on the function of public libraries.

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 (DLD), which is part of the State 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 public library system may not have formal oversight or regulative authority over 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. In order to qualify for and receive state and federal funding in New York State, a public library must be a member of a public library system. Library systems are the vehicle for administration of state funds and for other types of donations as well, such as grants from the Gates Foundation or special legislative earmarks from state legislators, and as such can exert coercive and normative pressures on member libraries. That is, they can exert pressure on member libraries by offering incentives and requiring participation in programs sponsored by a foundation in order to receive resources. Those resources may then affect library service, for example, as in the case of the Gates grants that introduced computers into rural libraries across the country.

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 (1999):

“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, 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.

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). So while these organizations aren’t likely to exert coercive or mimetic pressure upon public libraries, they can exert normative pressure through training and resources they provide to members. For example, they may host training on specific topics for their library and system members and influence regional library service provision in this way.

In addition to state laws, local ordinances, passed by counties and municipalities affect the functioning of public libraries through coercive pressure. For example, some libraries are required to submit annual reports to the governing authority in their community (e.g. city council members) and/or to present their annual budget to community members for approval. The library board exerts direct and formal 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.

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 (ALA) and its member association, the Public Library Association (PLA). There are also state-level professional organizations, such as the New York Library Association (NYLA) 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. In addition, the ALA is the accreditation body for graduate programs in Schools of Information and Library Science. These organizations have a heavy influence on the professionalization of librarians (especially for members) and by extension, they can influence library service provision through normative pressure. There is also a statewide 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. While they may exert some pressure on library function, they generally do not have any 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 may influence how books are categorized on the public library's shelves through this service.

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

resources and materials. In addition, these entities may have restrictions and/or guidance on how funds may be allocated or spent; thus exerting coercive, mimetic and normative pressure on libraries. For example, some donations may be designated for building expansion or capital expenditure only. In times of uncertainty, libraries may seek out funding through these alternate sources. In the case of support from some foundations, such as the Gates Foundation, there may be requirements (e.g. attendance in training programs) as a prerequisite for receiving funds and/or materials. These requirements are likely to affect which actors will participate in these funded initiatives and indirectly have the effect of creating a community of users who share and perpetuate new practices.

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 through mimetic and/or normative pressures 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 can 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, likely 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). A national research firm found in 2009 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 (ALA, 2010). This finding implies that in public libraries, there may be more patron influence on institutional culture than in other settings, where there is less repeat usage or visits over the course of a year.

Organizational fields aren't static. New fields can form to address meaningful issues of a specific collective; these issues can define or create a field with new linkages that may not have existed beforehand (Hoffman, 1999). Additionally, each of the three types of isomorphic pressures can have different effects on institutions. Thus, while public libraries in any location throughout the United States tend to be recognizable in their general functions, structures and practices, they will not be identical. Public libraries, like other organizations, are embedded within specific geo-physical milieus and social constituencies. Their particular form will, to some extent, be shaped by the patrons or clientele they serve and the local resources they rely upon to sustain themselves.

The organizational form public libraries assume will tend to be similar in many respects; however. This similarity is predicted somewhat by the isomorphizing tendency of institutions within the field. The institutional arrangements provide the setting that dictates what kind of

actors are able to exist, what actions they can undertake, and the meanings their actions will have (Scott, Ruef, Mendel & Caronna, 2000). But if actors are socialized in such a way that they only enact approved scripts, then how can organizational change occur?

Organizational culture can shape action by providing actors with “a ‘tool kit’ of habits, skills, and styles from which people construct ‘strategies of action’” (Swidler, 1986, p. 273). The seeds of change or an actor’s capacity to change scripts in order to enact different logics are present, therefore, even in equilibrium. Actors are embedded in multiple levels of intertwined institutional contradictions that can lead to internal cognitive contradictions; their practices are an important component of institutional change (Seo & Creed, 2002). This capacity for agency allows actors to be resourceful improvisers and innovators, not just mere automatons who are always executing and enacting sanctioned scripts.

To better understand organizational context and its role with regard to adoption and diffusion of new service provision in public libraries, I undertook a series of investigations that examined different approaches to providing consumer health information. While many factors were involved in how the approaches manifested, it appears that actors’ organizational field affiliation and institutional pressures did play a role in service provision. These findings and their implications are discussed in detail in Chapters 5 and 6.

Although there are numerous factors that might influence actors’ strategies, next I will concentrate on the role of professionalization, one element of normative institutional pressure.

2.2.2.1.1 Professionalization

In his archival analysis of art museums, DiMaggio (1991) examines professionalism of museum workers. 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, referred to

as the “Gilman” model. This model emphasized collection and conservation, and considered the museum’s audience to be local elites, collectors and the educated middle class. The counter model from the Newark museum, called the “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, a primary 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. Adapted 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

Do these aspects apply to professionalization in the library arena? It seems we can identify a similar pattern of professionalization in the library field. 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 ALA Council adopted new Standards for Accreditation, a subsequent outcome was 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-seven ALA-accredited library science programs in North America (ALA, 2012). It is common practice today for employers to require a degree from an ALA-accredited institution as a pre-requisite for job-seekers. Although there are core requirements for completing the degree, and librarians are generally trained in the same subject areas, those who specialize in a particular subspecialty (e.g. children's librarians, law librarians) will most likely attend classes related to that subject area if they are offered. Thus, while the body of knowledge may have some core similarities, it will not be identical for all library practitioners.

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). Membership is not restricted to librarians;

however, 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 the 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 public 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 ALA, the primary professional organization for public librarians, membership is not restricted to professional librarians. This tradition of inclusiveness may contribute to a less consolidated and cohesive professional elite, at least within the public library arena.

The final factor to consider in the discussion of professionalism 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 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. This may not be by chance. The possession of

a Master's degree is not a universal requirement for public library directors; it is often determined by population level of the chartered service area.

According to the American Library Association (personal communication, 9/9/12) in the U.S., over half (52%) of all public libraries are headed by non-MLS level managers or directors. If we break this down by population level, 58% of all public libraries in the country serve populations under 10,000; 75% of these libraries are directed by individuals without a MLS. Close to half (42%) of all public libraries serve populations under 5000; 84% of these are directed by an individual without a MLS. The majority of these libraries are in rural America (ALA, personal communication, 9/9/12). The lack of a requirement of the MLS degree may not be the case for librarians in other library settings (e.g., 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 professional level staff members. This, coupled with the fact that there are fewer law and medical librarians than public librarians overall, may lead to more cohesion, professional identity and similarities in approach to service provision among professionals within the subspecialties of law librarianship and medical librarianship.

How differing aspects of professionalization (i.e. educational level; professional organization affiliation) might interact with public library staffs' willingness to provide health information is explored in Chapters 4, 5, and 6. Next I will turn to a broader discussion of the role of public libraries as institutions in American society.

2.3 Public Libraries in American History and Society

In the United States, we have a history of over 160 years of tax support for public library services (McCook, 2011). As well-known institutions, public libraries have preconceived ideas

and perceptions attached to them, on conscious and unconscious levels, from within the organization and outside the organization. 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 an 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 an incubator of ideas...The public library provides a wide-open door to knowledge and information to people of all ages, abilities, ethnicities, and economic status.” (McCook, 2011, 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 that 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, with close to 17,000 locations throughout the nation, there are few establishments that are as firmly institutionalized in communities as the public library. Over 25 million Americans utilized their public libraries in 2009 (ALA, 2011). There are few public entities whose function is to be open to anyone and everyone on an equitable basis. For example, school attendance is predicated on age and residency; fire and police stations have a mission and structure that exclude many community members.

By the nature of their function, libraries are generally viewed positively. Traditional public library values have been described as non-commercialism, universalism (information accessible to all), democracy, and literacy promotion (Evjen & Audunson, 2008). “Knowing that the library exists, as a possibility, is important to non-users” (Varheim, Steinmo & Ide, 2008, p. 881). The public 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, through their long perceived cultural association with an informed, literate citizenry.

2.3.1 Democratic Ideals

Beyond democracy being considered a library value, public libraries have long been described as promoting and protecting democracy. This depiction is somewhat universal; it has not been confined to one group or political party. In fact, throughout time, and throughout the world, libraries have been defended and lauded by a wide range of individuals, from the philosopher Cicero who stated “If you have a library and a garden, you have everything you

need” (Hassert, 2011, appendix) to Rolling Stones guitarist Keith Richards, quoted in the London *Sunday Times*: “When you are growing up there are two institutional places that affect you most powerfully: the church, which belongs to God, and the public library, which belongs to you. The public library is a great equaliser.” (Harlow, 2010). Franklin Delano Roosevelt, as quoted by Stielow, stated “Libraries...are essential to the functioning of a democratic society... libraries are the great tools of scholarship, the great repositories of culture, and the great symbols of the freedom of the mind.” (Kranich, 2001, p. 3). Historian and Carnegie biographer, David Nasaw defends the necessity of libraries: "We should emphasize that libraries are not frills. They are not luxuries, but a sacred component of American education and American democracy." (Dias, 2012, para. 7)

Shera asserts “The modern public library in large measure represents the need of democracy for an enlightened electorate, and its history records its adaptation to changing social requirements.” (Shera, 1965, vi). In his 1981 statement for National Library Week, President Reagan stated, "If we are to guard against ignorance and remain free, as Jefferson cautioned, it is the responsibility of every American to be informed." While it appears that Jefferson’s exact quote was more likely, “If a nation expects to be ignorant and free in a state of civilization, it expects what never was and never will be,” Reagan's paraphrase has become the common interpretation for Jefferson's sentiment (monticello.org, 2011).

The assumption of the link between public libraries and promotion of democracy through an informed public is alive and well in the library literature. In the ALA’s publication *American Libraries*, Leonard Kniffel updates a 1995 list and outlines a dozen ways in which libraries are beneficial to the country. The first assertion is:

“Libraries sustain democracy. Libraries provide access to information and multiple points of view so that people can make knowledgeable decisions on public policy throughout

their lives. With their collections, programs, and professional expertise, librarians help their patrons identify accurate and authoritative data and use information resources wisely to stay informed. The public library is the only institution in American society whose purpose is to guard against the tyrannies of ignorance and conformity.” (Kniffel, 12/21/10)

On a fundamental and practical level, libraries do support democracy. Public libraries serve as polling places and voter registration outlets. When the query “Where do you find a polling place on Election Day?” was posed, the website ehow.com advised users to “Ask at the library or a local school. Many times, polling stations are at libraries and at local schools.”

(http://www.ehow.com/how_2061843_find-polling-station.html#ixzz1KG6xQYf1, 4/21/11). In Wisconsin, the State library association provides information on their website for libraries to sign-up to be trained by municipal officials in order to qualify for registering voters. In Georgia, the *Georgia Election Connection for Public Libraries* has been created to provide materials necessary for becoming certified as a voter registration location.

All libraries in the Springfield-Greene Library District in Missouri are designated as voter registration locations. In Virginia, the Central Rappahannock Regional Library highlights voter registration as one of their services (Buck, 2006). While some public libraries may not provide on-site registration for voters, many provide access to forms and registration guidelines. In New Jersey, public libraries have been identified as the conduit for voter registration forms. And some libraries, such as those in Montgomery County, Maryland host registration drives at specified locations and times. These are just a few examples of public libraries providing services for their communities with regard to voting, one of the primary elements of a democratic society.

Because of their perceived link to democratic values, we have come to take for granted that public libraries support citizens’ voting activities, although their mission statements and policies regarding service provision may not explicitly stipulate this. Our societal expectations or logics with regard to the institutional function of the public library as promoting democracy

allow for public libraries to serve as polling places and to host voter registration drives while other activities or services may not be as enthusiastically or seamlessly embraced.

From their inception, public libraries have been closely associated with the democratic fabric of American society, through their inherent support of life-long education and an informed public. This long history of societal and cultural association with democracy has provided public libraries with a certain amount of surety in continuity and continued legitimacy. While their existence as highly institutionalized organizations may afford public libraries some degree of stability, this may also have the effect of inhibiting systematic innovation and change. Incentives to change may come from outside forces, however, such as changing demographics which can lead to different expectations of service provision. Internal influence from professional staff and board members who seek to stay relevant to taxpayers may also exert pressure to innovate. Or, it may be that successful innovations are generally in accordance with an individual public library's fundamental identity or perceived *raison d'être*.

2.3.2 Public Library Service Provision

Even though public libraries enjoy a wide range of support, as publicly funded organizations, they 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 can cover a wide range of ideas and approaches, though they may be limited by library directors' and boards' underlying logics, 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 inner-city patrons to fresh, healthy food items (Owens, 2010). Some libraries lend laptops to patrons, others lend toys or puppets. A number of public libraries are becoming involved in the growing seed library network and loan seeds to their communities (richmondgrowseeds.org, 2013). Other items for lending in public libraries include party tents, small animal traps, and cake pans. Many libraries have embraced what they view as their educational mission and offer training in digital and financial literacy to patrons. There are many complex, interrelated factors that might affect the underlying perceptions or logics of community members with regard to their expectations for library service, one of which 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). The purpose of the traveling library was not to provide research or reference information, but to provide cultural and moral support for communities (DeGruyter, 1980). The majority of materials were fiction, with very few nonfiction titles to “help [people] to think to some purpose” (Bullock, 1907, p. 9). Thus, if we consider the effects of institutional isomorphism, the original purpose and expectation of the rural public library as fiction provider may continue to influence service provision and affect how rural libraries and their patrons perceive their mission today.

What services public libraries provide and how they respond to community desires and needs isn't universal in rural or urban settings, however. While some libraries may approach service provision innovatively, others fall back on relied-upon practices with little change. There are a number of complicated and intertwined factors that may influence service response, related to coercive, mimetic and normative isomorphism. If we take the case of health information provision in public libraries as an example, in terms of coercive isomorphism, there may be policies that restrict staff from answering health queries. Mimetic isomorphism may be evident through library directors' reactions to their neighboring libraries in terms of how they approach service provision. For instance, if a respected director in a nearby library determines that health information is not part of the public library's mission, other library directors may follow her lead and steer away from providing this service. With regard to normative isomorphism, elements of professionalization, such as the level of education, experience and expectations of the library director and/or staff may play a role.

2.3.3 Public Libraries and Consumer Health Information

Supporting an educated, literate populace has always been identified as a core function or mission of the public library; and now early literacy programs, with regular children's programming have become a staple in public libraries. Statewide summer reading programs with dedicated funding are common throughout the country in public libraries of all sizes. While early literacy and children's programs are ubiquitous throughout public libraries in the United States, the same cannot be said for other services, such as health information provision, though this may be changing.

Approximately one in five public library visits involves a reference transaction (IMLS, 2010). Not much current data is available delineating specific topics of reference queries asked at

public libraries, but some studies have shown that health information seeking and provision are taking place there. In one study, 60% of respondents reported that public libraries were among their preferred resources for health information (Deering & Harris, 1996). A statewide study in North Carolina 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, library staff estimated between 10-20% of patron reference queries on an annual basis were health related (Flaherty & Luther, 2011; Flaherty & Roberts, 2009).

Because the public library is trusted as an institution and information provider, it seems natural for patrons to use them for satisfying their health information needs. Additionally, research has shown that the need for health information exists and that there is enthusiasm among some libraries and library staff to fulfill this information need (Flaherty & Luther, 2011; Harris et al., 2010; Linnan et al., 2004). Findings from a 1998 pilot study by the National Library of Medicine (NLM) demonstrated an eagerness among public library staff to receive training and resources in support of their patrons' medical information needs. Once training and resources were provided, half of the libraries willingly promoted these expanded services through community outreach (Wood, Lyon, Schell & Kitendaugh, 2000). Patrons have stated that the health information they found in public libraries was valuable and affected their health care decisions (Baker, Spang & Gogolowski, 1998; Chobot, 2003; Harris, Henwood, Marshall & Burdett, 2010). Thus, whether they choose to be health information providers or not, public library staff will likely be in the position of addressing health queries.

Public libraries approach the role of health information provider in a variety of ways; levels of service provision in this area are not standard. Some subscribe to health databases and sponsor access to patrons, either onsite 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). There are some that have created outreach programs to serve their communities' health information needs (Chobot, 2003). On the other hand, there are some who are reluctant to take on the role of health information resource provider (Flaherty & Luther, 2011; Smith, 2010). Additionally, even though public library staff are regularly responding to patron queries regarding health, there are few who are trained to find and evaluate medical information (Gillaspy, 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 (Becker, et. al., 2010; Calvano & Needham, 1996; Guard et al., 2000; Martin & Lanier, 1996; Spatz, 2000). Rural communities may lack many of these organizations though, leaving the public library as the sole local information center. In New York State, there are three counties without hospitals, yet every county has at least four public libraries (New York State Department of Health, 2011; New York State Division of Library Development, 2011).

As the cost of health care in the United States escalates, different avenues for maintaining health and preventing illness are gaining interest in the health care arena. In 2009, 17.6 % of the Gross Domestic Product (GDP) was spent on health care – equal to 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). According to research published by the IMLS:

“...libraries have become a nontraditional, and perhaps overlooked, component of the national public health system. The expansion of the Internet is creating a growing number of vital links between access to information technology and personal health at a time when health care stands as one of the nation’s biggest public policy issues that impacts the welfare of citizens as well as the financial solvency of the nation’s largest social programs such as Medicare and Medicaid. Indeed, meeting health and wellness needs was one of the most frequently reported uses of public access technology, with 37 percent of users reporting having looked for health information, treatment options, care givers, or ways to improve their health; 56 percent of these users also reported seeking out these types of information for relatives, friends, colleagues, and others. (Becker et al., 2010, p.97)

If public libraries are serving as health information providers, and are becoming a “nontraditional component of the national public health system,” it is important that we have a better understanding of what that will entail and how staff will react to this important responsibility. In an effort to identify some of the institutional and organizational considerations involved with delivering this type of service, an investigation of three different approaches to health information provision in three different public library settings is presented in the following chapters.

2.4 Summary

Analysis of the complex process of institutionalization informs and extends our understanding of organizations’ functioning, adaptability, and capacity for change. The public library has a rich institutional history as a unique organization and institution 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 likely 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 continuously adapt to changes in their communities and society at large.

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)

As library practitioners, we need to know the institutional forces and dynamics that come into play as well. Then, our understanding of the implementation of new services (i.e. consumer health information provision or nutrition classes for newly diagnosed diabetics) will ensure that we are considering all the angles and maximizing opportunities for successful outcomes.

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 Dewey’s emphasis was on access to medical information for physicians and not all patrons, the fact remains that the notion of public libraries serving as the point of access for medical and health information is not a new one. As institutions in the business of all types of information provision, public libraries in all communities will likely have to address the

increasing amount of health information available to consumers, and probably sooner rather than later.

Chapter 3 follows, where I will describe the mixed methodology employed to: a. assess practice and b. explore organizational contexts in differing approaches to health information provision to investigate the following research questions:

- What organizational factors are associated with the provision of consumer health information?
- How does the organizational field influence the adoption of the service?
- What role do an actor's underlying logics have on the approach to health information provision?
- How does professionalization of librarians influence an institutions' adaptability to provide consumer health information?

Chapters 4 and 5 focus on the results of the two strands of research, and Chapter 6 will discuss the implications of the findings.

Chapter 3 Methods

3.1 Introduction

This research effort consisted of two strands of inquiry. In the first, I sought to collect empirical data on health information provision in public libraries. To do that, I completed three separate studies in three different geographic settings, using a combination of survey interviews with library directors and visits to libraries where I (or a MSLIS student) posed a health reference query. During these efforts, I sought to gather data to better understand: rates of health queries in public libraries; health information resource use by public library staff; health information reference practices, and what occurs when a patron physically visits a public library seeking health information.

The second strand of inquiry involved an examination of three different approaches to providing consumer health information in three different public library settings. For that phase of research, I conducted a case study of a Consumer Health Information Center (CHIC); an examination of an individual library's attempt at health information provision; and an analysis of a statewide initiative. The methods utilized included document analysis, interviews, and unobtrusive observation.

This chapter begins with a discussion of the three studies conducted to collect empirical data and the approach employed for those efforts. Each study will be described separately, though some of the same methods were employed across the three settings.

3.2 Health Information Resource Use – Three Investigations

In order to assess public library practice with regard to health information provision, three studies were completed. These efforts started with visits to rural libraries in Upstate New

York, as dictated by my geographic locale and interest in rural communities. The second phase built on the first study; the scope was broadened for a comparison of libraries in two public library systems in New York State, one served by a Consumer Health Information Center (CHIC), and one that did not have access to such a resource. The final stage led to Delaware, where a somewhat unique approach, a statewide consumer health initiative had been undertaken, in order to compare health information provision in the different settings, as depicted in Figure 3.1.

The initial pilot study was completed in 2010. This investigation included survey interviews with three library directors in each of the 10 most rural counties in New York (n=30 total), visits to 10 of those libraries and follow-up interviews in the 10 libraries that had received visits.

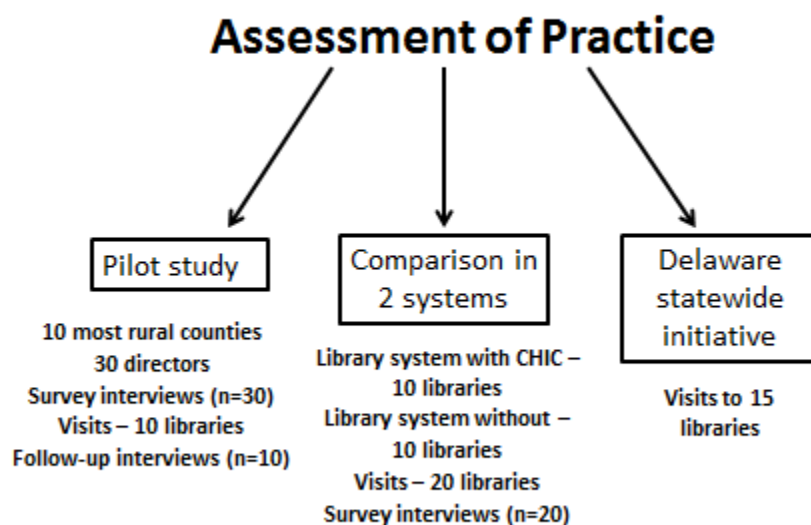


Figure 3.1- Three Studies to Assess Library Practice

The second study, completed in 2011, involved a comparison of 20 public libraries in two different public library systems in Upstate New York (ten from each system). In one library system, members had access to a Consumer Health Information Center as a resource for assistance with health queries; the other library system did not have this type of resource. Similar to the pilot study, visits were made to the libraries (n=20 in this case) and survey interviews were completed with the 20 directors.

The third study was conducted in Delaware, where a statewide initiative was enacted with the goal to provide health information to all residents. That arm of research was completed in 2012 and consisted of visits to 15 libraries. For each of the three separate studies, the research was determined to be exempt by the Institutional Review Board (IRB) of Syracuse University (6/15/10; 6/21/11; 7/11/12).

3.2.1 Pilot Study

Because rural residents can be at a disadvantage in terms of health status (Befort, Nazir & Perri, 2012; Gamm, 2010; U.S. Census Bureau, 2010), and public libraries in rural communities may be the only health information resource available, the first study focused on rural public libraries in Upstate New York. Studies in the library literature use different parameters and definitions for determining a classification of small and/or rural (Ivie, 2000). The Library Services and Construction Act (LSCA) defines rural libraries as those that are located in communities with 10,000 residents or less (Osbourn, 1973). The Center for the Study of Rural Librarianship and the American Library Association (ALA) classify public libraries that are chartered to serve communities with less than 25,000 residents as rural (Vavrek, 1983). For the purposes of the pilot study, rural libraries were defined as public libraries that were 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 (RUC). The pilot study was limited to rural libraries in Upstate New York for ease of geographic access.

Non-metropolitan counties are classified in the RUC range of 4-9 by degree of proximity to metropolitan areas and degree of urbanization. A higher RUC number signifies a more rural population. Eleven counties in New York State had a RUC of 6; one county was a 7 and one county was an 8 (0 had a RUC of 9), for a total of 13 for potential inclusion. The counties with the RUC of 7 and 8 were included, the remaining eight counties with the lowest populations and population loss from 2000-09 were selected from those with a RUC of 6. Table 3.1 describes the rural-urban continuum codes used.

Table 3.1 - Rural-Urban Continuum Codes

6	Urban population of 2,500-19,999, adjacent to a metro area
7	Urban population of 2,500-19,999, not adjacent to a metro area
8	Completely rural - less than 2,500 urban population, adjacent to a metro area

Source: <http://www.ers.usda.gov/Data/Population/PopList.asp?ST=NY&LongName=New York>

In order to compare service provision, a random sample of 30 total libraries from all of the public libraries in those 10 rural counties (three from each county) was identified using the Bibliostat database (via the New York State Division of Library Development) to access data from the Federal-State Cooperative System for Public Library Data. For each county, all of the names of the public libraries were placed in a hat and three were chosen. This occurred for all 10 counties, for a total of 30 participants. Where libraries were unwilling to participate in the survey, the next nearest geographically was chosen. For background data on the 30 libraries, I

consulted the Bibliostat database (available through New York State Division of Library Development's website) annual report data for 2008 (the most current year available at the time).

An initial, brief telephone survey was conducted with the library director/manager in each of the 30 libraries. In each case, the interview began with a description of the brief survey, and by obtaining informed consent (I read the informed consent statement over the phone and agreed to supply the director with a copy if s/he so wished; none of the directors requested a copy). All of the directors verbally agreed to the informed consent statement.

I then asked the following three questions: *What percentage of reference questions are health related? What is the primary resource used when answering a health query? Where do you learn about health information resources?* A copy of the interview protocol is included in Appendix B.

A MSLIS student, posing as a patron with a health query, visited 10 of the total 30 libraries (all within a 100 mile radius of Syracuse for ease of travel) and asked the reference question, "Do vaccines cause autism?" This question was constructed, in consultation with a physician, to provide a degree of ambiguity in order to emulate a true reference encounter involving a health information issue. The purpose of the library visits was to better understand what health information tools rural public library staff were using to answer health queries where the answer may not be obvious and where there's a wide variety of information available.

This attempt to emulate a true reference encounter was utilized to discover what resources public library staff were using to answer a routine reference question. In this way, I used participant observation of public behavior. This aspect of the research was an observation of institutional function, and not of any individuals. Reference and circulation desks in public libraries are publicly exposed, all members of the public are eligible to use the services, and

library staff have no expectation of privacy in making referrals to information resources. The purpose of the library visits in all three studies was to obtain results of health information resource use in public library settings. No data was collected that can point to individuals or specific locations, in other words, nothing was recorded that can point to the specific individual who fulfilled the patron request (no time of day, date, etc.) or the individual library. No unique identifiers were collected and data has been presented on the aggregate level.

The initial phone survey and visits were completed in summer 2010. (For visit protocol see Appendix B). During the visits, the student kept a record of the exact reference resource(s) that was provided. Resources were categorized into online (referred to a resource via the computer) or print; and the first resource provided was noted as well. Print media were further categorized as non-fiction or reference as classified by the individual library. The publication dates and titles of resources were recorded. For the purposes of this research, authoritative information was categorized as such if it answered the question, “do vaccines cause autism” with timely, accurate information that was consistent with current medical findings and literature.

In January 2011, I contacted each of those 10 libraries that had been visited by phone again and interviewed the library directors/managers. In addition to three questions from the initial survey, 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 10 libraries in order to discover whether there was any organizational standardization within or across libraries.

The results of the pilot study were published in June 2011 in the journal *Public Library Quarterly*.

3.2.2 Comparison of Libraries in Two New York State Systems

In Upstate New York, two public library systems that serve primarily rural populations were identified. In one of those two library systems, the central library established a consumer health information center (CHIC) in 1999. In the other system, the central library does not have such a resource for system members. To better understand the function and influence of the CHIC and its effect on health provision in the member libraries it served, I repeated the visit protocol for health query assessment that I had undertaken in the pilot study.

Because it was not possible to visit all of the libraries in both systems (totaling over 60) and I sought to obtain a representative sample of member libraries in each system, I randomly selected 10 public libraries in each of the two systems (there were approximately 30 total libraries in each system), or approximately one-third of the libraries in each system. I then visited those 10 randomly selected public libraries in each of the two systems, for a total of 20 library visits in this round of investigation. During those visits, I asked for information on whether vaccines cause autism at the reference desk if there was one, and at the circulation desk if there was not a designated reference or information area. A record was made of the exact reference resource(s) that was provided at each visit. Resources were categorized into online or print, as in the previous study. If more than one item was provided, 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. I consulted the most recently available annual report data in the Bibliostat database (through the NYS DLD website) to determine number of MLS level staff for individual libraries.

Some weeks later, I conducted short interviews with the library director/manager in each of the 20 libraries via telephone. The following questions were posed: *What percentage of*

reference questions are health related? What is the primary resource used when answering a health query? Where do you learn about health information resources? Does the library have a policy for answering reference questions? All of those contacted agreed to complete the survey, and verbally agreed to the informed consent statement.

As in the pilot study, the questions were designed to better understand the extent of health reference queries in public libraries, how public library staff interact with health information, and whether there was any organizational standardization for addressing reference or health queries. The second item in the phone survey, “*What is the primary resource used when answering a health query?*” was included to better understand systemization or standardization of practices and whether there were differences or similarities across and between libraries and library systems. Results of the answers to this question were then compared with what actually happened during the library visits. To better understand the possible diffusion of library practices, during the phone interviews I also asked, “*Where do you learn about health information resources?*” In this phase of interviews, as with the pilot study, I used an interview guide and asked respondents to choose their primary method from a list which I read. Two respondents declined to answer this question. Results from the phone interviews were compared with the responses obtained during the in-person visits in order to discover whether there was any organizational standardization within or across libraries, and whether there differences between the two systems.

The results of this effort were published in the April 2013 issue of the journal *Library Quarterly*.

3.2.3 Delaware Statewide Initiative

In Delaware, an innovative partnership between the public library community and the medical library community created a statewide consumer health initiative in 2004. In the third round of investigation, I endeavored to visit half (16 of 32) of the public libraries in the State of Delaware, to better understand the effect of that statewide consumer health initiative on health information provision. In order to determine which libraries to visit, an alphabetical online list of all public libraries in the State of Delaware was procured. A coin toss was performed where heads=1, and tails=2. Based on the result of the coin toss, I started with the first (or second) library on the list and chose every other one, for a compilation of half of all the libraries (n=16). One of the randomly chosen sixteen libraries was closed for renovations, so I successfully visited 15 of the total 32 public libraries across the state.

I used the same protocol as I had in the New York library visits in the visits to the Delaware libraries. I approached the front desk (or the reference desk if there was an area designated as such) and said I was looking for information to learn do vaccines cause autism. As with the other efforts, at each visit, the first resource consulted or referral to information source was recorded. An overt method of data collection (pencil and paper) was used to record only the name of the information resource(s) and not any identifying aspect of the interaction with the library staff. I reviewed and rated the materials on-site. Dates, times, or library location were not recorded. To determine if the library had MLS level staff employed there, I consulted the annual report data in the Bibliostat database for individual libraries. Due to time limitations, the Delaware effort only included library visits and unlike the New York studies, did not include survey interviews with library directors/managers.

3.3 Exploring Three Approaches to Health Information Provision

The second strand of research consisted of three investigations to better understand the organizational and institutional contexts that led to differing approaches to consumer health information provision in public library settings. Figure 3.2 is a pictorial depiction of the three efforts and the methods that were employed.

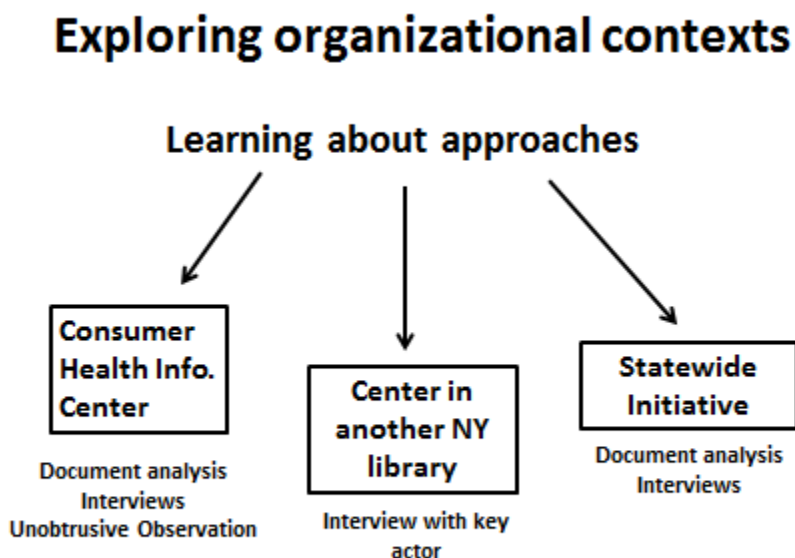


Figure 3.2 – Three Different Approaches to Consumer Health Information Provision

The first and primary investigation was of a consumer health information center (CHIC) that was established in a central library in a public library system in New York. The second was of a more modest effort that was established in an individual public library, not too far from the CHIC. The third was the statewide initiative enacted in Delaware. The case study of the CHIC was more extensive than the other two efforts and included document analysis, interviews, and

unobtrusive observation. The other two investigations were based on interviews, and in the case of Delaware, I also used some document analysis as well.

3.3.1 Case Study of the Consumer Health Information Center (CHIC)

Because it was a more extensive endeavor than the other two investigations, this section begins with a discussion of the case study of the CHIC, including some background and how case selection took place. Data collection, analysis, and addressing validity for all three of the investigations were similar; thus, they will be discussed together in the section that follows this one.

The case study method has been described as the appropriate approach for 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 (Baxter, 2008; Stake, 1995). “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 has helped to lay the groundwork in our understanding of organizational and institutional behavior (Gouldner, 1954; Selznick, 1949).

The broad research queries guiding the study of the CHIC included: in an organization, what influences the commitment associated with establishing a consumer health information or resource center? What factors contributed to this choice of service provision? Based on these broad issues, these questions guided the case study:

- **RQ1:** What organizational factors are associated with the creation of a consumer health information center (CHIC) within a central public library as a mechanism of service provision?
- **RQ2:** How does the organizational field influence the central public library with regard to adoption of a consumer health information center (CHIC) as a service?
- **RQ3:** What role do an actor's underlying logics have on the approach to health information provision?
- **RQ4:** How does professionalization of librarians influence an institutions' adaptability to provide consumer health information?

The case study method allowed for a holistic approach and multiple means of data collection to identify the factors that influenced organizational choices in terms of the establishment of a CHIC. For example, in order to address the second research question, the first step was to identify the organizational field, which can only be determined through empirical analysis (DiMaggio & Powell 1991). The case study also allowed for exploration and analysis of possible members of the organizational field (vertical and horizontal, formal and informal) and their influence on the library's service provision and perception of mission. By employing this in-depth approach, using multiple methods of data collection, I was able to explore phenomena from many angles. For instance, interviews with library system staff demonstrated that they had little or no institutional influence upon the creation of the CHIC, while information found in documents (e.g. grant applications) revealed that the organizations that supplied the resources for the CHIC did exert influence.

3.3.1.1 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 this arm of the research, a unique approach by a central library for health information provision – the establishment and continued maintenance of the CHIC – was investigated. This singular case in New York State afforded the opportunity for an in-depth exploration of the decision-making process and organizational factors and influences that led to its creation.

3.3.1.2 The Case in question

In the late 1950’s, public library systems were established through Education Law in New York State to allow for cooperative sharing of resources and to extend local public library services (NYS DLD, 2011). Each of these library systems has a central library (or co-central libraries) whose mission is to support the member libraries in their system. More than a decade ago, central libraries were identified as “often the gateway to consumer health information” not only for their immediate community, but for the communities of the member libraries that they supported (NYS DLD Central Libraries Association, 1999). At that time, the association of central library directors was more vital and active than it is now. Some of the central library directors from libraries in the Upstate district sought to modify legislation to identify innovative ways to provide access to health information for library patrons (J. Steiner, personal communication, October 19, 2010). The plans weren’t carried out, but in one of the sixteen central libraries within cooperative systems, a consumer health information center was established in 1999. This single, unique case offered the opportunity to study the center, the organization, and the decision-making processes that led to its creation.

3.3.2 Data Collection and Analysis

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 to examine the three societal levels (institutional, organizational and individual) and the contributing factors involved in the decision to create the CHIC, a variety of approaches were used to elicit data, including interviews, document analysis, and observation. Interviews also took place in the other two investigations and followed the same protocol and process.

3.3.2.1 Interviews

Interviews allow the respondent to move back in time and permit the reconstruction of events (Lincoln & Guba, 1985; Pickard, 2007). To balance maximizing efficiency while gleaning an adequate amount of information in the process, a preliminary set of questions were used to guide the interview process and included open and closed-ended questions to elicit information. As further information was obtained, questions were adapted based on the interactions with interviewees. 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). The complete interview guides used for the various audiences are included in Appendix C. In all cases, informed consent was obtained. If the interview took place over the telephone, informed consent was obtained either electronically beforehand or verbally at the beginning of the interview session.

Table 3.2 includes a summary of the individuals who were interviewed in all three of the investigations, with their positions, affiliations, and the settings where the interviews took place.

In all cases, pseudonyms have been created for anonymity. The different investigations are delineated, with the CHIC at the top and Delaware at the bottom.

Table 3.2 - Interviewees in All Investigations

Interviewees (pseudonym)	Position and Setting	Setting where interview was conducted
Laura	Library director of central library with CHIC	Library – 4 occasions
Francine	Foundation member involved in creation of CHIC	Telephone
Marie	Original medical librarian at CHIC	Restaurant near her workplace
Rebecca	Librarian who replaced Marie as consumer health librarian at CHIC	Library – 2 occasions
Helen	Hospital librarian in town where CHIC was located	Hospital
Susan	Current library system director in same system as CHIC	Library System
10 Library directors	Members in library system served by CHIC at central library	In their individual libraries
Nearby Library		
Georgia	Public librarian who imitated CHIC in her public library setting	Library
Pam	Public librarian (also has CHIS certificate) who works in same public library as Georgia	Interview was not completed
Delaware		
Arthur	Medical librarian from Academy of Medicine – Delaware	Telephone
Sandy	State library staff member (Administrator) – Delaware	At her workplace – Delaware
Jane	Medical librarian who had been posted in public library in Delaware	Telephone

To investigate the influence of professionalization on the institutions' adaptability to provide consumer health information (the topic of research question four for the CHIC case study) interviews were conducted with directors of 10 member libraries served by the CHIC. DiMaggio's (1991) aspects of professionalism helped to guide this line of research inquiry; in particular, the effects of the elements of university-trained experts and membership in

professional associations on professionalization. These interviews included questions on: membership in professional library organizations; conference and training attendance; interaction with other library directors; educational background and number of MLS level librarians employed by the library.

For investigating the second approach to health information provision, only one extensive interview took place, with Georgia. She was the individual responsible for creating a resource similar to the CHIC in her nearby library. I was referred to Georgia by Marie, the original CHIC medical librarian. For the interview with Georgia, I used the same interview template as I did for the library directors as a starting point. I was unable to interview Georgia's colleague, Pam.

For the Delaware initiative, interviews were conducted with the medical librarian who spearheaded the initiative (Arthur), the State Library staff administrator who was instrumental in establishing the conduit to the public libraries, and one of the former embedded medical librarians, Jane. Arthur initiated the introduction to Jane, and suggested that I contact her.

For all of the interviews, I used physical note taking for recording. I transcribed my notes and shared the transcripts with each of the interviewees for member checking. In some cases, interviewees made minor changes and/or supplied more information. In all cases, the interviewees signed off on the final version and agreed with my written version of our interview. I used interview responses to fine-tune the interview process, that is, each interview informed the next in terms of honing questions and improving the quality of the data that was collected.

Once the notes were verified, I summarized the results. For some of the data (e.g. membership in professional associations), I created tables. For the narrative aspects of the interviews, I categorized and sorted the data by using codes to label and organize them. Coding was performed manually and occurred in two steps, initial and focused coding (Charmaz, 1978).

In the initial phase, the emphasis was on making sense and trying to find connections. For the second step in the process, focused coding, I used 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 meant going back to the data and re-examining it in order to describe the process that was indicated.

Once I compiled summary data, I used the codes that were created and treated them as topics or categories, similar to the process of the librarian classifying books into categories or applying subject headings or keywords to articles, to create memos. Once I had a critical mass of memos, I sorted them and combined comparable categories, summarizing findings. I regularly submitted those summary memos and discussed results with my peers and professional colleagues for review in a cyclical process of iterative cycles of data collecting.

3.3.2.2 Documents

Documents provided a record or written accounting of decisions made, policies passed, and services adopted. They were used to trace the decision-making process and the path the organization followed in the establishment of the CHIC. For example, records of grant applications and annual reports enabled me to trace the development and usage of the CHIC. Additionally, documents were used to clarify and/or verify information obtained through interviews. For instance, I corroborated dates, and the organizational process described during interviews with written documents that traced the process formally.

In order to probe the reasoning behind the establishment of the CHIC as a means of health information provision, I reviewed the following publicly available documents for mention of the CHIC:

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

In addition to publicly available documents, the library director gave me access to the documents on her personal computer that were related to the CHIC. These mostly included memos, preliminary drafts of press releases, and internal reports that may not have been in the archived files. These served to give a more complete picture of the process, and to verify documents found in the archives.

To pursue the issue of professionalization in research question four, the documents that were utilized included the annual report statistics from the New York Division of Library Development (through the Bibliostat resource) on staff educational levels and total numbers of reference queries.

For reporting purposes in the results section, Chapter 5, quotes from documents are signified with italics, while quotes from individuals are not.

In the exploration of the second approach, a thorough document analysis did not take place, though searches were conducted online to learn more about the library and community where Georgia's initiative took place. Annual report statistics were obtained using the Bibliostat database from the New York Division of Library Development. Searches using the Google and

Bing search engines as starting points were performed using the library's name as the query term.

Document analysis in the Delaware initiative was also not as extensive as it was in the case of the CHIC. The documents that were used included State reports on funding requests, annual reports on the consumer health initiative and other summary reports of the initiative, made available by the State Librarian. Annual report statistics and educational levels of staff were obtained through the Bibliostat database of Federal-State Cooperative System for Public Library Data.

3.3.2.3 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). I did perform some unobtrusive observation in the CHIC and through the visits in all of the settings. In the CHIC, this approach was used in an attempt to view interactions taking place between the medical librarian and patrons and usage of the center. In all cases, no unique indicators (e.g. date and time, patron descriptions, library location) were recorded, and data has been presented in aggregate form. For the CHIC, permission from the library director and library staff were obtained before any observation occurred. In all cases, IRB approval was obtained prior to conducting the research. This data collection technique was used to explore health information provision and interactions with library staff with regard to reference service provision.

3.3.3 Assuring 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: construction of the theoretical underpinning; research design process; interviewing; transcribing, to ensure trustworthiness of respondent’s reports; 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 series of studies, quality control in each of the seven stages (in italics) was addressed as follows (procedures are in bold):

- *Conceptual framework; theoretical underpinning*
 - **Review and analysis of literature**
- *Research design process*
 - **Pilot study**
 - **Dissertation proposal – committee review process**
- *Interviewing*
 - **Use of interview guides; fine-tuning based on completed interviews**
 - **Field notes and memo writing**
 - **Transcription review by interviewees**
- *Transcribing*
 - **Double coding** (initial coding and focused coding)
 - **Member checking**
- *Analysis*
 - **Double coding** (initial coding and focused coding)
 - **Memo writing**
 - **Member checking**
- *Validating*
 - **Triangulation of sources:** multiple interviews, variety of documents and observation , variety of settings
 - **Memo writing**
 - **Member checking**
- *Reporting*
 - **Member checking**

- **Journal articles submitted to peer-reviewed venues**

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. The tactics I used during the data collection phase of the study to mitigate construct validity (using the correct measures for the topic being researched) were: utilizing multiple sources of evidence, and creating a chain of evidence. The use of document analysis, interviews, and observation allowed for multiple sources of analysis to address some of these concerns. Triangulation can greatly strengthen research measurement; similar results with different approaches lead to better confidence in the validity of each measure (Schutt, 2006).

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).

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 had inherent advantages and disadvantages. The fact that I was not familiar with the libraries and communities I studied helped to provide a fresh outlook. I employed triangulation of sources, with multiple interviews with a variety of actors, observations through visits to public libraries across geographical settings, and document analysis. I also used regular submission of field notes, review of analytical memos by professional and peer colleagues, and member checking to

guard against any bias that may have arisen due to preconceived notions or expectations that I might possess due to my background in the library field.

Additionally, the research design was iterative, with sequential studies that built on findings that further informed the approach. For example, based on results from the pilot study, I fine-tuned the process. After submitting results from the first two empirical studies for peer-reviewed publication, I used reviewer's feedback to inform the research and improve the overall quality.

3.4 Summary

Through the multiple investigations I undertook, I sought to inform our understanding of the role of the public library as health information resource provider. To investigate the CHIC more fully, I utilized the case study approach for a more robust and complex understanding (deVaus, 2001). My intention was to shed light on the decision-making process and organizational forces that led not only to the creation of the Consumer Health Information Center as a means of health information provision, but also to better understand the institutional forces involved in the other approaches as well. Chapter 4 continues with a discussion of the results of the three studies that addressed assessment of library practice.

Chapter 4 Assessing Practice: Health Queries in Public Libraries

“Public librarians are the salt of the earth, to expect them to ride herd on medicine is tough; medicine is tough, and it’s always changing.” - *Eminent Medical Librarian*

4.1 Introduction

A patron walks into a public library, approaches the library staff and poses the question “Do vaccines cause autism?” How do staff in public libraries deal with such questions? Are they willing to answer health reference queries? Little is known about the quality of information patrons receive when they visit public libraries for health information. What resources do public library staff use when and if they do answer health queries? Are there institutionalized or standardized approaches (e.g. reference policies) across libraries or library systems or states that guide health information resource use?

The first phase of data collection presented here sought to address these preliminary research questions, and to better understand how public library staff interacted with patrons when it came to health information requests. Over the course of many months and across geographical settings, I visited a number and variety of public libraries to find out how library staff answered the reference query, “Do vaccines cause autism?” This three part effort originated with a preliminary investigation in rural libraries in Upstate New York. The second stage involved a comparison of libraries in two public library systems in New York State, one served by a Consumer Health Information Center (CHIC), and one that was not served by such a resource. The final stage led to another state, Delaware, where a statewide consumer health initiative had been undertaken. This chapter will focus on the results of those visits, as well as on the results of surveys conducted with library directors/managers in some of the libraries in New York State.

4.2 Health Information Resource Use – Preliminary Investigation

Utilizing a mixed methods approach of surveys and library visits, preliminary investigations in rural New York State in 2010 found that while patrons did use rural public libraries for health information, provision of information resources was far from standardized. For this initial 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. Starting with 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 30 total libraries from all of the public libraries in the 10 most rural counties (three from each county) in the state was identified. An initial, brief telephone survey was conducted with the library director/manager in those 30 libraries. (Appendix B) In each case, after obtaining verbal informed consent, I asked the following three questions:

1. *What percentage of reference questions are health related?*
2. *What is the primary resource used when answering a health query?*
3. *Where do you learn about health information resources?*

The first question was designed to explore the extent to which patrons used rural public libraries for health information. Many of the respondents reported that they didn't record the actual subject of reference queries, in those cases I asked them to estimate. 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 30 library directors (47%) stated that they used the Internet as their primary health information resource. Four stated they started

with Google; three started with MedlinePlus; two started with WebMD; and five used a health database made available to them through their public library system. Thirteen of the 30 library directors (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 (ILL) 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 library directors (10%) stated that they could not recall or did not answer health related queries. (Figure 4.1)

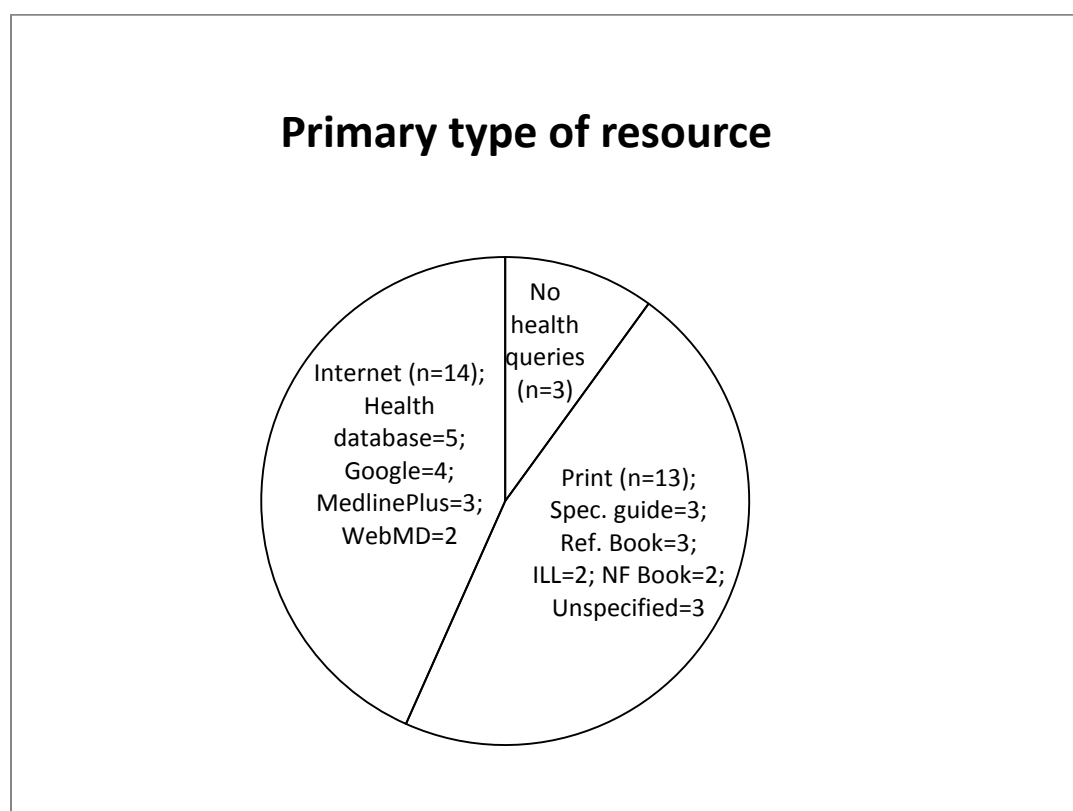


Figure 4.1 – Primary Resource identified to answer Health Queries – Pilot Phone survey

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.” Many of the directors identified multiple outlets. Thirteen respondents listed other library staff as a resource (this included staff from libraries other than their own); 10 listed library journals and professional media; 24 identified their library system as a resource; six listed training opportunities outside the library system, 11 identified advertising (generally through popular media), and 14 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 30 libraries reported (through their annual report to New York State) having a staff member with a MLS degree (three libraries listed a full-time MLS staff member, one a 60% MLS FTE and one had a 25% MLS FTE).

4.2.1 Reported (Phone Survey) vs. Actual Practices (Library Visits)

In order to further understand standardization or institutionalization of practices among and between libraries when it came to providing health information, I compared reported practices (from the initial phone survey) to actual practices. For this segment of data collection, a recent MSLIS graduate visited 10 of the 30 libraries (all within a 100 mile radius of Syracuse for travel ease) and posed the reference query, “Do vaccines cause autism?” This question was constructed in consultation with a physician, 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. Of those 10 visits, six of the reported practices (from the initial phone survey) matched the actual practice in the visit with regard to starting online or with print; four did not. It should be noted that in three instances, the subcategory (e.g. actual online

resource or type of print resource used) did not match. These results suggested that there weren't guidelines for practice or a preferred starting point for addressing health queries. In other words, there weren't standardized procedures within the libraries for dealing with complex health questions. (Table 4.1)

Table 4.1 - Reported vs. Actual Practice in Primary Resource Used

Library	Reported – first survey	Actual Practice - visit	Match?
1	Print – Reference	Print - Reference	Yes
2	Print – Reference	Print – NF	Yes (No)*
3	Print – Interlib. Loan	Print – NF	Yes (No)*
4	Print (not specific)	Internet (cdc.gov)	No
5	Internet (Health DB)	Internet (Health DB)	Yes
6	Internet (MedlinePlus)	Internet (MedlinePlus)	Yes
7	Internet (MedlinePlus)	Internet (Google)	Yes (No)*
8	Internet (WebMD)	Print – NF	No
9	Internet (Health DB)	Print – Reference	No
10	"No health queries"	DVD in collection	No

*Note: *Denotes actual subcategory of resource reported in phone interview did not match practice during visit. NF=non-fiction; DB=database*

4.2.2. Resources provided during Library Visits

In six of the 10 library visits, staff started by providing items from the library's print collection. In two instances books from the reference collection were the first item provided. Overall, publication dates for reference items that were provided (including all reference materials provided, as often more than one item was pulled from the collection and handed to the visitor) ranged from 1979-2009. The first reference item provided at the visits was on average over 20 years old; the median publication date for reference items was 1997; the average publication date was 1996. For the non-fiction items, including three books and one DVD, the publication dates ranged from 1976-2009. The first non-fiction book provided in this 2010 investigation was on average five years old; the median publication date for non-fiction items was 2004, and the average was 2002. (Table 4.2).

Table 4.2 - Print Resources provided during Library Visits

Reference Book (as classified by library)	Publication Year	Non-Fiction Book (as classified by library)	Publication Year
<i>Good Housekeeping Family Health & Med. Book</i>	**1979	Kaufman, B.N. <i>Son-Rise</i>	1976
<i>Mayo Clinic Family Health Book</i>	**1990	Barron, J. <i>There's a Boy in Here</i>	1992
<i>Merck Manual</i>	1992	Williams, D. <i>Nobody Nowhere</i>	1992
<i>Merck Manual</i>	1997	Maurice, C. <i>Let me hear your voice</i>	1993
<i>Children's Medical Guide – Columbia U.</i>	1997	Williams, D. <i>Somebody Somewhere</i>	1995
<i>Physician's Desk Reference</i>	2005	Powers, M.D. <i>Children with Autism: A parent's guide</i>	2000
<i>Mosby's Medical Dictionary</i>	2009	Seroussi, K. <i>Unraveling the Mystery of Autism</i>	2000
		<i>Harvard Medical School Fam. Health Guide</i>	2001
		<i>OASIS Guide to Asperger Syndrome</i>	**2001
		CNN Video: <i>Autism is a World</i>	**2004
		Prince-Hughes, D. <i>Songs of the Gorilla Nation</i>	2004
		Sicile-Kira, C. <i>Autism spectrum disorders</i>	2004
		Grandin, T. <i>Animals in translation</i>	**2005
		Grandin, T. <i>Animals in translation*</i>	2005
		McCarthy, J. <i>Louder than Words</i>	2007
		McCarthy, J. <i>Mother Warriors</i>	2008
		Teitelbaum, O. <i>Does your baby have autism?</i>	2008
		Allman, T. <i>Asperger's Syndrome</i>	2009
		Isaacson, R. <i>The Horse Boy</i>	2009
		Isaacson, R. <i>The Horse Boy*</i>	2009
		McCarthy, J. <i>Healing and preventing autism</i>	**2009
		Scott, E. <i>Raindrops on Roman</i>	2009
		Strickland, E. <i>Eating for Autism</i>	2009

*Note: Each book is listed per occurrence of library staff provision, thus 2 books are listed twice.

**First book provided to interviewee

In all of the visits where library staff used the library's collection for addressing the health reference query (six out of 10 visits), the resource was not adequate for answering the question that had been posed. In those six encounters, the materials provided ranged from outdated books to advocacy literature to autobiographies warning against the danger of vaccines, and did not answer the specific question that was asked. Popular literature was provided by library staff on more than one occasion and presented as authoritative health information. For example, 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.” This was particularly noteworthy because Ms. McCarthy has no medical background or expertise in vaccines or autism.

4.2.3 Follow-up Phone Survey

In January 2011, six months later, each of the 10 libraries that had been visited was contacted and the library director was interviewed by phone again. In addition to the three questions from the initial survey, two more survey questions were posed:

4. *Does your library have a policy for answering reference questions?*
5. *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 10 libraries. Again, this was in an effort to discover whether there was any organizational standardization within or across libraries. 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; though, in two of those cases, the subcategory (e.g. online resource or type of print resource used) did not match. None of the 10 libraries reported having a policy for answering reference questions. (Table 4.3)

Table 4.3 - First Reported vs. Reported for Specific Query in Follow-up Survey for Primary Resource Used

Library	Reported – first phone survey	Reported – follow-up phone survey	Match?	Reference Policy?
1	Print – Reference	Print – Reference	Yes	No
2	Print – Reference	Print – NF	Yes (No)	No
3	Print – Interlibrary Loan	Print - NF	Yes(No)	No
4	Print (not specific)	Print - NF	Yes	No
5	Internet (MedlinePlus)	Internet (MedlinePlus)	Yes	No
6	Internet (Health DB)	Internet (Health DB)	Yes	No
7	Internet (MedlinePlus)	Internet (MedlinePlus)	Yes	No
8	Internet (WebMD)	Print - NF	No	No
9	Internet (Health DB)	Print - NF	No	No
10	“No health queries”	DVD in collection	No	No

There were differing levels of staff attitudes toward 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 not comfortable using online resources: “Most people who come in know the computer better than I do, so I don't steer them toward the computer.” At the other end of the spectrum, one library staff member explained that she took advantage of online resources, “We use MedlinePlus; patrons can find what they need.” As discussed later, this resource is well respected and often recommended as the number one resource by many health reference professionals for addressing consumer health inquiries.

This 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. I also learned that there weren't any standardized practices within or among public libraries, and that when staff consulted print materials, those items were not adequate for answering the health query that had been posed. The results of this preliminary study were published in June 2011.

4.3 Comparison of health information provision in two library systems

During the preliminary investigation, one of the randomly selected libraries referred me to a Consumer Health Information Center (CHIC) located at the central library within their library system. This discovery led to a number of new questions, including: in an organization, what influences the commitment associated with establishing a consumer health information 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? These research questions will be addressed in more detail in Chapter 5, which includes the results of the case study undertaken in the CHIC.

Before looking at institutional and organizational influences and how and why the CHIC was established, I first sought to understand whether the presence of the CHIC exerted any influence on health information provision in libraries that were members of the same library system. In this section I will address that attempt, in which I compared health information provision in two different library systems (the system served by the CHIC and a library system without a CHIC).

The CHIC is situated in a central library within a cooperative public library system, thus besides its immediate community, the central library also serves as a resource for 34 member libraries in the same public library system. Although the member libraries function autonomously, the central library is tasked with providing professional support and reference resources for them. In order to better understand the function of the CHIC and its effect on health provision in the member libraries it serves, I repeated the health query assessment that I had undertaken in 2010. Visits were made to 10 randomly selected libraries in the system served by the CHIC (out of 34 total). In order to compare service provision between systems, one with the CHIC, and a system without such access, 10 randomly selected libraries in a similar cooperative library system (with a total of 33 member libraries) were also visited in a different part of the State, for a total of 20 library visits in this round of investigation.

Data analysis in this section includes a comparison of the visits to the 20 libraries, and results of short phone interviews with the 20 library directors in both systems. This effort, as with all the other phases of research, was determined to be exempt by the Institutional Review Board (IRB) of Syracuse University.

As previously mentioned, for the library visits the same protocol was followed as in the pilot study, although in this round of visits a MSLIS student was not involved. I visited all of the

libraries and posed the reference query, “Do vaccines cause autism?” and then recorded the exact information resource that was provided or recommended to me. If more than one item was provided, 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.

In the second phase of this 2011 study, short interviews were conducted some weeks after the visits with the library director or manager in each of the 20 libraries via telephone. The following questions were posed:

1. *What percentage of reference questions are health related?*
2. *What is the primary resource used when answering a health query?*
3. *Where do you learn about health information resources?*
4. *Does the library have a policy for answering reference questions?*

A more detailed description of the results of this phase of research is included below.

4.3.1 Background Information on the Twenty Libraries

For the 10 libraries served by the library system without a CHIC in the central library the populations served ranged from 855 to over 5800 (average 2886, median 1832); the total operating expenditures in 2010 ranged from just over \$36,000 to \$215,000 (average \$110,000, median \$104,000). The average and median number of total full-time equivalent (FTE) staff was 1.8; one library reported 1 full-time MLS staff member; one library reported a half-time MLS staff member. The remaining eight libraries reported no MLS staff members. Total number of reference questions annually ranged from 400 to 5300 (average 2500, median 2100) (Bibliostat, 2011).

For the libraries in the system with access to a CHIC in the central library, the populations served ranged from 400 to 49,900 (average 9400, median 3400). By excluding

libraries in the sample with populations over 15,000, nine libraries are included with a population range of 400 to 13,400 (average 4900, median 3200). Total operating expenditures for 2010 for those nine ranged from \$37,000 to \$300,000 (average \$95,000, median \$80,000). If we include the larger library, the range becomes \$37,000 to \$2.9 million (average \$378,000, median \$81,000). The large library reported over 12 full-time MLS staff members and over 50,000 reference transactions annually. The average number of FTE staff for all 10 libraries was close to six, median 1.8. When excluding the large library, the average number of FTE staff falls to 1.8 and median becomes 1.7. Of those nine libraries, one library reported a half-time MLS staff member, one library reported a .7 full-time MLS staff member, and the remaining seven libraries reported no MLS staff members. Total reference transactions for the nine libraries (excluding the largest library) annually ranged from 22 to nearly 20,000 (Bibliostat, 2011).

4.3.2 Results of Visits in Two Systems – One without a CHIC, and One with a CHIC

During the summer of 2011, I visited 10 randomly selected public libraries in each of the two systems (n=20) or approximately one-third of the 67 total libraries in the two systems. One system did not have a consumer health information resource mechanism at the central library, and one did have a CHIC in the central library. I used simple random sampling of libraries in an attempt to maximize representation of all member libraries and to make comparisons between the two systems. When the question, “Do vaccines cause autism?” was posed to library staff, a record was made of the exact resource provided. In the libraries in the system without a CHIC, a small majority (60%) of staff used the book collection as the primary resource. In the system with the CHIC, in half (50%) 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 as a resource for answering the query. This practice was not consistent with the pilot study that was conducted in 2010 and reported earlier, in that case 20% of staff started with the reference collection during library visits. Table 4.4 below indicates the categories of resources that were provided or consulted: the book collection, health database, Google, MedlinePlus, referral to a local community college, and referral to the CHIC.

Table 4.4 - Primary Resource consulted in Libraries in 2 Systems

Resource consulted	Library system - no CHIC	Library system - with CHIC	Total
Book Collection – 8 unique titles	6	5	11
Health database thru system	2		2
Google	1	1	2
MedlinePlus		1	1
Referred to local college	1		1
CHIC		3	3
Total	10	10	20

More than half of the total 20 libraries started with the book collection. Among libraries without a CHIC at the central library, two out of 10 referred to the health database made available through their library system. One library in each of the systems (n=2) referred to Google as the preferred primary source. One of the staff members who advised using Google stated “the top 10 sites on Google are the best, so start with those.” One library in the system with the CHIC referred to the National Library of Medicine’s online resource for consumers, MedlinePlus. In one library visit in the system without the CHIC, 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.” In the libraries served by the CHIC, three libraries (30%) referred to the CHIC or the medical librarian as the primary resource for, in the words of one staff member, “information on such a confusing issue.”

In the libraries in both systems that supplied non-fiction books, there were eight unique titles, the publication dates spanned 1986-2010, and included a range of materials. Table 4.5 is a list of the print resources that were provided in the visits to libraries in both systems.

Table 4.5 - Print Resources provided in Library Visits in the Two Systems

Print Resource provided	Library system without CHIC	Library system with CHIC	Answered query with authoritative information?
Sears, R. (2010) <u>Autism book</u>		1	No
Young, L. (2010) <u>Everything parent's guide to vaccines</u>	1		Yes
McCarthy, J. (2009) <u>Healing and preventing autism</u>	1		No
Bock, K. & Stauth, C. (2007) <u>Healing the new childhood epidemics</u>	1	1	No
Kirby, D. (2005) <u>Evidence of harm</u>	1	2	No
Miller, N. (2002) <u>Vaccines: are they really safe and effective</u>	1		No
Powers, M. (2000) <u>Children with autism: a parent's guide</u>	1		No
Grandin, T. (1986) <u>Emergence, labeled autistic</u>		1	No

For the purposes of this research, authoritative medical information is defined as timely, accurate, and consistent with current medical findings. If we consider the library visits to both systems, and the print resources provided during those visits, there are eight unique titles (Table 4.5). Of those eight, only one resource addressed the question, “Do vaccines cause autism?” with up-to-date, balanced and authoritative medical information. The book: Everything parent's guide to vaccines was the only publication supplied that fit all of the requirements for an authoritative resource. Thus, authoritative information was provided in only one of 11 encounters where print materials were the preferred resource. Even though many epidemiological studies have not found any causal link between vaccines and autism (Institute of Medicine, 2004), 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 discussed autism, but don't address vaccination in any way and were outdated with regard to current information on the topic.

There were two items that were supplied by libraries in both systems; both of these books received a considerable amount of attention when they were published. One of these was the 2007 publication by Bock & Staath titled: Healing the new childhood epidemics: Autism, ADHD, asthma, and allergies: The Groundbreaking program for the 4-A disorders. It was reviewed, mostly favorably, in *Publisher's Weekly*, a common collection development tool for public librarians:

“Empathetic and encouraging, this highly readable guide breaks down complex biomedical concepts clearly, keeping frustration at bay. Parents of affected children will appreciate the guide to action, but they, along with medical professionals, will probably wish for endnoted references rather than a general bibliography, and further statistics on treatments.” (4/2/07).

In his book, Bock refers to the research by Andrew Wakefield, (the original author of the retracted study linking vaccines with autism who has since lost his medical license) 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 20 library visits (two occasions in the system with the CHIC and one in the system without) was the book Evidence of Harm by D. Kirby. Kirby's book was reviewed in the *New York Times Sunday Review of Books* (4/17/05). It received the “Investigative Reporters and Editors 2005 Award for Outstanding Investigative Reporting in a Book” and it was a finalist for the New York Public Library Helen Bernstein Book Award for Excellence in Journalism (Coxe, press release from St. Martin's Press, 3/28/06). Yet, 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.”

Public librarians are more likely to turn to the *New York Times* book review section than they are to use the *British Medical Journal* for collection development guidance, however.

All 10 of the libraries in the one system have access to the CHIC; during the library visits three out of 10 referred the question to the CHIC. Half of the libraries in that system (five out of 10) used their own book collections as the primary resource, and in all of those instances the books referred to weren't adequate for answering the query and/or contained misinformation. One library staff member recommended using MedlinePlus (she had learned about the resource during a training session offered by the CHIC), and one suggested Google as the best resource for the query. Thus, it appears that four out of 10 responses were affected by the presence of the CHIC as a resource for health information.

In the libraries in the system without the CHIC, two out of 10 referred me to a health database, available to the library through the library system's subscription. I considered this resource to be somewhat comparable to referral to the CHIC or to MedlinePlus, as all of these resources provide access to authoritative, vetted medical information. Like the system with the CHIC, there was one referral to Google. In part, because more than half of the libraries in both systems referred to the print collection (11 out of 20), and only one of the print items answered the query well (in the system without the CHIC), the effect of access to the CHIC was not as strongly correlated with supplying authoritative health information as one might expect. Overall, from the 20 library visits, I found there was little significant difference in the quality of resources referred to for answering a complex health query between the libraries in the two systems.

4.3.3 Phone Surveys in Two Systems – One without a CHIC, and One with a CHIC

In each of the 20 libraries, 10 in the system without the CHIC, and 10 in the system with the CHIC, short survey interviews were completed via telephone with the library director or manager some months after the library visits. All of those contacted completed the survey. The same questions were included in the brief survey as in the previous study. Again, the questions were designed to better understand the extent of health reference queries in public libraries, how public library staff interact with health information, and whether there was any organizational standardization for addressing reference or health queries.

For the libraries in the system without the CHIC in the central library, the total number of reference questions ranged from 400-5300 (Bibliostat, 2011). Based on the reported fraction of queries that were health-related, it was estimated that between 125-1700 health queries were made per year. This suggests an average of 29% of all reference questions were reported as health-related. In the system with the CHIC, for all 10 libraries, the range of annual reference questions was 22 to 59,000 (Bibliostat, 2011); for the reported number of health related queries the range was two to 5100. If we exclude the largest library, for the remaining nine libraries, the range for total reference queries was 22 to 20,000 (Bibliostat, 2011). Again, based on the phone survey, for health related queries, the range was two to 2400, with an average of 14% of all reference queries reported as health-related. (Table 4.6)

Table 4.6 - Annual Reference Questions in Both Systems

Library System	Average Number Reference Questions 2011 (Bibliostat)	Avg. No. of Health-related Reference Questions (estimate by directors)	Avg. Percentage of Reference Questions that are health-related
Without CHIC (n=10)	2514	725	29%
With CHIC (excluding large library; n=9)	4156	579	14%
With CHIC (all libraries; n=10)	8827	1030	12%

Tables 4.7 and 4.8 address the second item in the phone survey, which was “*What is the primary resource used when answering a health query?*” As in the pilot study, this question was included to better understand systemization or standardization of practices and whether there were differences or similarities across and between libraries and library systems. Results of the answers to this question were then compared with what actually happened during the library visits.

In the system without the CHIC, during the phone interviews, three of 10 reported online as the primary resource; seven reported the print collection as the starting point for health queries. During the library visits, online resources were suggested as the primary resource in three cases, print resources were provided in six cases, and a referral to another library was made in the remaining case. If we compare the reported practices from the phone interview with the library visits, reported practice matched actual practice six times out of 10. This is only slightly more than half of the time and thus implies there is not a standardized approach or institutionalized procedure for resource utilization in health reference queries. (Table 4.7)

Table 4.7 – Reported vs. Actual Practice in Resource utilization - Libraries in system without CHIC

Library system without CHIC	Primary resource reported during phone survey	Primary resource provided during visit	Match?
Library 1	Online – health database	Online – health database	Yes
Library 2	Online – Google	Referral to local college	No
Library 3	Online – MedlinePlus	Print	No
Library 4	Print	Online – health database	No
Library 5	Print	Online – Google	No
Library 6	Print	Print	Yes
Library 7	Print	Print	Yes
Library 8	Print	Print	Yes
Library 9	Print	Print	Yes
Library 10	Print	Print	Yes
Total	Online=3; Print=7	Online=3; Print=6	Yes=6; No=4

For the library system with the CHIC, five libraries reported online resources as the starting point for health queries in the phone survey. During library visits, print resources were provided five times out of 10, online resources were suggested as the starting point in two cases, and referral to the CHIC occurred in three cases. In four out of ten cases reported practice (phone survey) matched actual practice (library visit) in terms of resource provided, again implying there are not institutionalized practices in place across all libraries. (Table 4.8)

Table 4.8 - Reported vs. Actual Practice in Resource utilization - Libraries in system with CHIC

Library system with CHIC	Primary resource reported during phone survey	Primary resource provided during visit	Match?
Library 1	Online - MedlinePlus	Online - MedlinePlus	Yes
Library 2	Online – county website	Online – Google	No
Library 3	Online - MedlinePlus	Referral to CHIC	No
Library 4	Online – no specific source	Print	No
Library 5	Online – no specific source	Print	No
Library 6	Print	Print	Yes
Library 7	Print	Print	Yes
Library 8	Print	Print	Yes
Library 9	Print	Referral to CHIC	No
Library 10	Print	Referral to CHIC	No
Total	Online=5; Print=5	Online=2; Print=5	Yes=4; No=6

To better understand the possible diffusion of library practices, during the phone interviews I also asked, “*Where do you learn about health information resources?*” In this phase of interviews, I asked respondents to choose their primary method. Of the library directors/managers in the system without the CHIC: three reported the library system as the primary resource; two reported self-taught; two reported other (“daughter is librarian”; “pay attention to what patrons are asking for”); one reported advertising as the primary resource for learning about health information and two declined to answer the question.

For libraries in the system with the CHIC, when asked “*Where do you learn about health information resources?*” library directors/managers reported the library system as the primary resource in seven cases; in five of those instances or half of the time (five of 10 libraries) the

respondent specifically mentioned the CHIC (as part of the library system services) as the primary resource. Two respondents reported other (“doctor in town”; “most people just go on the Internet”), and one reported self-taught. (Table 4.9)

Table 4.9 - Primary Means of Learning about Health Information for Library Directors in Two Systems

Primary means of learning about Health Information	Library System without CHIC – Number of Libraries reporting	Library System with CHIC Number of Libraries reporting
Library System (CHIC)	3	7 (5)
Self-taught	2	1
Other	2	2
Advertising	1	
Declined to answer question	2	

None of the total 20 libraries reported having a policy for answering reference questions in general, or health questions, specifically. As the lack of policies might imply, it appears that there is not a standardized approach when it comes to what resources are used for health reference queries, in either of the systems. Also, even though library director/managers in the system with the CHIC identified the CHIC as the primary mechanism for learning about health information, it doesn't appear that this translated into better health information provision practices or standardized approaches to health queries, or automatic referral to the CHIC for complicated health queries. The next section focuses on one aspect of professionalization of library staff (possession of a terminal degree), and whether there were differences in the information supplied during library visits in libraries with MLS level staff vs. non-MLS level staff in either system.

4.3.4 MLS Level Staff vs. Non-MLS Level Staff: Effect on Information provided

We return now to the primary resources provided in the 20 library visits in the two systems, one system without a CHIC and one system with a CHIC. Authoritative information was categorized as such if it answered the question that was posed with timely, accurate

information that was consistent with current medical findings. As described above in section 4.3.2, only one book fit this description. The health database, CHIC, and MedlinePlus all fit the criteria and were considered authoritative. Because resources in Google may not always be accurate, and the naïve user may need guidance in evaluating results, it was not considered an authoritative resource. The local college was not categorized as authoritative either, as it wasn't apparent what specific resource they might use to answer the health query; additionally the library staff did not provide the name of a specific institution or give any details on health information resources that might be available there. For all visits, authoritative information was provided in seven out of 20 instances (Table 4.10).

Table 4.10 - Primary Resource Consulted in Both Systems - Quality of Resource

Resource consulted	Library system 1 - no CHIC	Library system 2 - with CHIC	Total	Authoritative?
Book Collection	6 (1 authoritative)	5	11	1
Health database thru system	2		2	2
Google	1	1	2	No
MedlinePlus		1	1	1
Referred to local college	1		1	No
CHIC		3	3	3
Total Authoritative	3	4	7	7
Total	10	10	20	7

The next four tables consider the effect of one aspect of professionalization, as described earlier in Chapter 2 (production of university-trained experts) on service provision. For all of the visits, I kept a record of the resources provided during the visits and whether the library reported having a MLS level staff member. Tables 4.11 and 4.12 summarize the library visits in the system without a CHIC in the central library.

Table 4.11 - Libraries without CHIC - Quality of Resource provided and MLS level staff

Library	Resource provided	Authoritative	MLS Level Staff (n=2)	Non-Authoritative & MLS	Authoritative & Non-MLS
1	Health database – Ebsco	Yes	No		Yes
2	Health database – Ebsco	Yes	No		Yes
3	Google	No	No		

4	Referral to local college	No	No		
5	Book collection – Kirby, D. (2005) <u>Evidence of harm</u>	No	No		
6	Book collection – Bock, K. (2007) <u>Healing the new childhood epidemics</u>	No	No		
7	Book collection – Powers, M. (2000) <u>Children with autism: a parent’s guide</u>	No	Yes	Yes	
8	Book collection – Miller, N. (2002) <u>Vaccines: are they really safe and effective</u>	No	Yes	Yes	
9	Book collection – McCarthy, J. (2009) <u>Healing and preventing autism</u>	No	No		
10	Book collection – Young, L. (2010) <u>Everything parent’s guide to vaccines</u>	Yes	No		Yes
Total		Yes=3; No=7	Yes=2; No=8	Yes=2	Yes=3

Two out of 10 libraries reported having a MLS staff member. For total health reference interactions: authoritative information was provided in libraries with MLS level staff 0% of time and by non-MLS 30% of time. Non-authoritative information was provided in libraries with MLS level staff 20% of time (100% of time for MLS interactions) and by non-MLS 50% of time when considering total interactions.

The same information is presented in Table 4.12, but in a two by two format.

Table 4.12 – Results of Library Visits in System without CHIC

	LIBRARY SYSTEM W/OUT CHIC – 10 interactions		
	MLS Level Staff (N=2)	NON-MLS (N=8)	Total
AUTHORITATIVE INFORMATION (as percentage of total interactions)	0 0%	3 30%	3 30%
NON-AUTHORITATIVE INFORMATION (as percentage of total interactions)	2 20%	5 50%	7 70%

Overall, in the system without the CHIC, authoritative information was provided 30% of time, always by libraries without MLS level staff; non-authoritative information was provided 70% of time, 20% of the time that was in libraries with MLS level staff, and 50% of the time in libraries without MLS level staff.

Tables 4.13 and 4.14 describe the results of visits in the system with the CHIC in the central library. Three out of 10 libraries reported having a MLS staff member. Authoritative information was provided in libraries with MLS level staff 0% of time and by non-MLS 40% of time. Non-authoritative information was provided in libraries with MLS level staff 30% of time (100% of time for MLS interactions) and by non-MLS 30% of time for all interactions. (Table 4.13)

Table 4.13 - Libraries with CHIC - Quality of Resource provided and MLS level staff

Library	Resource consulted/provided	Authoritative	MLS Level Staff (n=3)	Non-Authoritative & MLS	Authoritative & Non-MLS
1	Health database – MedlinePlus	Yes	No		Yes
2	Referral to CHIC	Yes	No		Yes
3	Google	No	No		
4	Referral to CHIC	Yes	No		Yes
5	Referral to CHIC	Yes	No		Yes
6	Book collection – Kirby, D. (2005) <u>Evidence of harm</u>	No	Yes	Yes	
7	Book collection – Kirby, D. (2005) <u>Evidence of harm</u>	No	Yes	Yes	
8	Book collection – Bock, K. (2007) <u>Healing the new childhood epidemics</u>	No	Yes	Yes	
9	Book collection – Sears, R. (2010) <u>Autism book</u>	No	No	No	
10	Book collection – Grandin, T. (1986) <u>Emergence, labeled autistic</u>	No	No	No	
Total		Yes=4; No=6	Yes=3; No=7	Yes=3	Yes=4

For the visits to libraries in the system with the CHIC, authoritative information was provided 40% of time, always in libraries without MLS level staff. Non-authoritative information

was provided 60% of time, half of the time it was in libraries with MLS level staff, and half of the time in libraries without MLS level staff members. (Table 4.14)

Table 4.14 –Results of Library Visits in System with CHIC Resource

	LIBRARY SYSTEM W/ CHIC – 10 interactions		Total
	MLS (N=3)	NON-MLS (N=7)	
AUTHORITATIVE INFORMATION (as percentage of total interactions)	0 0%	4 40%	4 40%
NON-AUTHORITATIVE INFORMATION (as percentage of total interactions)	3 30%	3 30%	6 60%

Tables 4.11 through 4.14 demonstrate that having a MLS staff member did not appear to have a positive effect on the quality of health information provided in either system. In fact, in all cases in both systems authoritative information was only provided in the libraries with the non-MLS level staff. Additionally, in all cases in both systems, when non-authoritative information was provided in libraries with MLS staff it was *always* from the library’s print book collection.

4.3.5 Summary of comparison of two systems

In the system without the CHIC, 29% of all reference questions were estimated by library director/managers to be health related, and in the system with the CHIC, that figure was between 12-14%. In health reference encounters in both systems, more than half of the staff started with the print collection (11 of 20). The print material that was provided answered the health reference query, “Do vaccines cause autism?” in just one of those 11 encounters. When comparing reported practice with actual practice in terms of health reference, in the system without the CHIC, reported matched actual practice 60% of the time, and in the system with the

CHIC, reported matched actual practice 40% of the time. None of the total 20 library director/managers reported having a policy for answering reference questions.

In the phone interviews, seven of the 10 member library directors with access to the CHIC reported the library system as the primary resource for *learning about health information provision*, and five mentioned the CHIC specifically as the primary resource. Yet, it appears that in practice access to the center did not have a universal impact in terms of assuring accurate and reliable resource use for answering health queries. Additionally, having a MLS level staff member did not appear to positively influence the provision of accurate and high quality health information in either of the systems. From the results of the visits and interviews in the two systems, I found that levels of health information service provision were similar across systems, and that having access to the CHIC had little overall effect on the actual quality of information or resources provided during library visits. A report of this effort has been published in the April 2013 issue of *Library Quarterly*.

4.4 Health Information provision in another State

4.4.1 Background

A differing model of health information provision was discovered in another state. In Delaware, a statewide consumer health initiative was enacted through collaboration between the Division of Libraries and the Academy of Medicine (a private organization), initially using funds from the state's tobacco settlement. A medical librarian was posted in a public library in each of the three counties in the state; these individuals were supervised by personnel from the Academy of Medicine. A more thorough description and analysis of the initiative follows in Chapter 5.

To investigate the ramifications of a statewide health information provision initiative on public library practice in the field, I sought to visit half (or 16 of 32) of the libraries in the state.

One of the randomly chosen sixteen libraries was closed for renovations, so I successfully visited 15 of the total 32 public libraries across the state. The results of those visits are included below.

4.4.2 Results of Library Visits in Delaware

I used the same protocol as I had in the New York library visits in the visits to the Delaware libraries. I approached the front desk (or the reference desk if there was an area designated as such) and said I was looking for information to learn do vaccines cause autism. A book from the library's non-fiction book collection was provided in six out of 15 visits; in two of those instances, the book provided was by pediatrician and vaccine expert Paul Offit, Vaccines and Your Child (2011) and was deemed authoritative, as described earlier (included timely, accurate information consistent with current medical findings). In the other four instances, the books provided were not authoritative (as described in section 4.3.2 above). Health databases were referred to in over half of the visits (eight of 15); these included MedlinePlus and the Centers for Disease Control & Prevention (cdc.gov). In two libraries, reference staff performed online searches for me and I was given free printouts from the health databases. In one library visit I was referred to Google. The library director in this case said she had "a relative with autism, and found a lot of good information on Google." When I asked for specifics on search terms or a place to start, she said "try 'vaccines cause autism' in the search box." Table 4.15 summarizes the resource provided, whether it was authoritative and if the library had MLS level staff employed there (as reported in annual report data in Bibliostat).

Table 4.15 - Resource Provision in Library Visits in Delaware

Library	Resource provided	Authoritative?	MLS Level Staff (n=10)	Authoritative & MLS	Non-Authoritative & MLS
1	Book collection – Bruni, M. (1998) <u>Topics in Down Syndrome</u>	No	Yes		Yes
2	Book collection – Bock, K. (2007) <u>Healing the new</u>	No	No		

	<u>childhood epidemics</u>				
3	Book Collection – Kirby, D. (2005) <u>Evidence of harm</u>	No	Yes		Yes
4	Book collection – Kirby, D. (2005) <u>Evidence of harm</u>	No	Yes		Yes
5	Book collection – Offit, P. (2011) <u>Vaccines and Your Child</u>	Yes	No		
6	Book collection – Offit P. (2011) <u>Vaccines and Your Child</u>	Yes	No		
7	Health database- MedlinePlus	Yes	Yes	Yes	
8	Health database- MedlinePlus	Yes	Yes	Yes	
9	Health database- MedlinePlus	Yes	No		
10	Health database- MedlinePlus	Yes	Yes	Yes	
11	Health database- MedlinePlus	Yes	Yes	Yes	
12	Health database- CDC	Yes	Yes	Yes	
13	Health database- CDC	Yes	Yes	Yes	
14	Health database- CDC	Yes	Yes	Yes	
15	Google	No	No		
		Yes=10; No=5	Yes=10; No=5	Yes=7	Yes=3

Ten out of the 15 libraries I visited reported having a MLS staff member (Bibliostat, 2012). In 10 out of 15 visits, I received high quality, authoritative information that addressed the health reference query, though this wasn't always directly correlated with the libraries that had MLS level staff. As in the 2011 New York visits, in none of the visits did the library staff refer to a reference collection or reference books.

If we consider total interactions and provision of health information, authoritative information was provided in libraries with MLS level staff in seven of 15 interactions; of the 10 visits in libraries with MLS level staff, 70% of the time I was referred to authoritative information. In libraries with non-MLS staff authoritative information was provided in three of 15 interactions. Non-authoritative information was provided in libraries with MLS level staff 20% of time (three of 15 interactions) and by non-MLS 13% of time (two of 15 interactions) for total interactions. Over all, authoritative information was provided in 10 of 15 interactions; non-authoritative information was provided in five of 15 interactions, as described in Table 4.16.

Table 4.16 - Delaware Library Visit Results – Type of information provided and Level of Staff

	MLS (N=10)	NON-MLS (N=5)	Total
AUTHORITATIVE INFORMATION (as percentage of total interactions)	7 47%	3 20%	10 67%
NON-AUTHORITATIVE INFORMATION (as percentage of total interactions)	3 20%	2 13%	5 33%

In four out of the five interactions where non-authoritative information was received, and in *all* of the instances where MLS level staff provided non-authoritative information, books from the library's print collection were the resource.

4.5 Comparison of all visits in two states

There are a number of factors to consider when comparing the results of the library visits in the two states. First, size may matter. In terms of total area, Delaware is the second smallest state in the U.S. (behind Rhode Island) and New York is 27th. There are only three counties in Delaware, and in New York there are 62. In fact, at least one rural county in New York State (Delaware County) is almost the same size in square miles as the entire state of Delaware. New York has 755 public libraries, while in Delaware there are 32. By visiting 20 libraries in New York State in the second round of data collection, I covered about 2-3% of total public libraries. In Delaware, by visiting 15 libraries, I covered 47% of all public libraries in the state. According to the American Library Association (ALA), in New York State, 46.4% of public libraries are run by staff without an ALA-accredited MLS, and in Delaware that number is 38.1% (ALA, personal communication, September 10, 2012). Additionally, in New York I purposely studied rural public libraries. Because the Delaware study covered the entire state, it included some

suburban and urban libraries. With these facts in mind, we'll now consider the differences in results of library visits in both states.

Table 4.17 summarizes the quality of information provided in all visits in both states. Authoritative information was provided in 17 out of 35 visits, or 49% of the time. Authoritative information was provided more often in Delaware. Non-authoritative information was supplied in 18 out of 35 visits, or 51% of the time. Non-authoritative information was supplied more frequently in New York library visits.

Table 4.17 - All Library Visits and Authoritativeness of Information

Libraries	Authoritative Info.	Total Visits	Percentage Authoritative	Non-authoritative Information	Percentage Non-auth.
NY System without CHIC	3	10	30%	7	70%
NY System with CHIC	4	10	40%	6	60%
Total for both NY	7	20	35%	13	65%
Delaware	10	15	67%	5	33%
Total	17	35	48%	18	52%

If we consider the print resources provided in all of the library visits, two books were provided in all three geographic locations: Healing the new childhood epidemics (Bock, 2007), which was provided once in each location (three instances) and Evidence of harm (Kirby, 2005), which was provided in five instances (twice in two locations and once in one location). As explained in section 4.3.2, these books did not answer the question, “Do vaccines cause autism?” with balanced, accurate, and authoritative information. These two books alone accounted for more than half of the non-authoritative answers from print resources (eight of 14) and for eight of 18 or 44% of total non-authoritative information encounters received during library visits in all locations (the other four were 3 referrals to Google, and 1 referral to a local college). (Table 4.18)

Table 4.18 - Print Resources provided during All Library Visits - Authoritativeness of Information

Print Resource	NY System without CHIC (10 library visits)	NY System with CHIC (10 library visits)	Delaware (15 library visits)	Answered question with authoritative information?
Bruni, M. (1998) <u>Topics in Down Syndrome</u>			1	No
Bock, K. (2007) <u>Healing the new childhood epidemics</u>	1	1	1	No
Kirby, D. (2005) <u>Evidence of harm</u>	1	2	2	No
Offit, P. (2011) <u>Vaccines and Your Child</u>			2	Yes
Sears, R. (2010) <u>Autism book</u>		1		No
Young, L. (2010) <u>Everything parent's guide to vaccines</u>	1			Yes
McCarthy, J. (2009) <u>Healing and preventing autism</u>	1			No
Miller, N. (2002) <u>Vaccines: are they really safe and effective</u>	1			No
Powers, M. (2000) <u>Children with autism: a parent's guide</u>	1			No
Grandin, T. (1986) <u>Emergence, labeled autistic</u>		1		No
Total	Authoritative=1 Non-authoritative=5	Authoritative=0 Non-authoritative=5	Authoritative=2 Non-authoritative=4	Authoritative=3 Non-authoritative=14
Total Print	6 Total visits=10	5 Total visits=10	6 Total visits=15	17 Total visits=35

In New York State, the requirement for MLS level staff is based on population, so the less populous areas where rural libraries are located are less likely to have MLS level staff in charge. According to the State Librarian in Delaware, there aren't any requirements with regard to MLS degrees for library directors/managers. The State master plan recommends that directors have the MLS degree, but doesn't require it. There is a "generous scholarship loan program for

the Master’s degree; it’s been extended to include the Bachelor’s and Doctorate degrees too. We use carrots, not sticks.”

Table 4.19 summarizes the educational level of staff in all of the library visits. In the NY system without the CHIC, 2 out of 10 of the libraries had MLS level staff. In the NY System with the CHIC, 3 out of 10 of the libraries had MLS level staff. In Delaware, 10 out of 15 of the libraries that were visited had MLS level staff.

Table 4.19 - All Library Visits and Staff Level

	MLS Staff	NON-MLS Staff	Total Staff	Percentage MLS Staff	Percentage NON-MLS Staff
NY System 1 – w/out CHIC	2	8	10	20%	80%
NY System 2 – w/CHIC	3	7	10	30%	70%
Delaware	10	5	15	67%	33%

In the visits in NY State to libraries without MLS level staff, non-authoritative information was provided in slightly more than half the instances (eight of 15). In Delaware, in the visits to libraries without MLS level staff, non-authoritative was provided in two cases out of 15. (Table 4.20)

Table 4.20 - Comparison of Health Resource Quality for Libraries in Both States without MLS level staff

	Authoritative	Non-Authoritative
NY without MLS	7	8
DE without MLS	3	2
Total	10	10

The figures in Table 4.20 suggest that a patron in New York who visits a library without MLS level staff is less likely to receive authoritative information, but given the small numbers of reference transactions, this number isn’t statistically significant. Table 4.21 summarizes the results of visits to libraries with MLS level staff. In NY State, in those visits, non-authoritative information was provided in all five interactions in libraries with MLS level staff. In Delaware,

authoritative information was provided in seven instances, and non-authoritative information was provided in three libraries with MLS level staff.

Table 4.21 - Comparison of Health Resource Quality for Libraries in Both States with MLS level staff

	Authoritative	Non-Authoritative
NY with MLS	0	5
DE with MLS	7	3
Total	7	8

While the numbers are small, and the different states represent different proportions of total libraries, Table 4.21 demonstrates a patron in New York State who visits a library with MLS level staff in the selected systems was less likely to receive an authoritative information resource. This discrepancy would have occurred only one out of 100 times by chance, and is statistically significant. This suggests that while the Delaware system was more effective, it was far more effective among those libraries with MLS level staff. These differences will be explored in further detail in Chapters 5 and 6.

4.6 Summary

Through visits to public libraries and interviews with library director/managers, I sought to better understand how staff respond to health queries, what resources they use and whether there are institutionalized or standardized approaches (e.g. policies, guidelines) across libraries, library systems, or states that guide health information resource use. If we consider the results of these three separate attempts to better understand health information provision in public libraries, some of the main findings include: patrons are using public libraries to fulfill their need for health information, though they aren't always assured of receiving authoritative health information during those visits. There don't appear to be any standardized practices (e.g. policies in place, guidelines for practice) when it comes to health information provision in the New York libraries and library systems where the studies took place.

When there was a formal organizational level response to providing health information (through establishment of a consumer health information center) in one library system in New York State, access to the CHIC by member libraries of the same system didn't markedly improve the quality of health information provided when compared with results of library visits in a similar library system without a formalized consumer health information resource. The CHIC approach was found to have been imitated in another library in a neighboring library system, however. Thus it appears to have had a positive effect on consumer health information provision regionally. This instance of imitation will be introduced and discussed in further detail in Chapter 5.

Overall, having MLS level staff did not have a positive impact on quality of health information provided in the New York State systems. The quality of information provided was tied more to what resources were available on the libraries' shelves. In the majority of times where non-authoritative information was provided, it was a print resource. This was true in Delaware as well, although health information provision in that state was superior to provision in the public libraries that were visited in New York. It does appear that in Delaware having MLS level staff had a positive impact on the provision of authoritative health information.

This chapter has concentrated on assessing practice, that is, what is happening on the ground and out in the libraries. To further explain these results, and to untangle the differences in service provision discovered in the two states, Chapter 5 continues with the results of three case studies, one of the CHIC, one of a library that imitated the CHIC, and one of the Delaware statewide initiative.

These three investigations were undertaken to better understand organizational structures, institutional aspects, and differing approaches to consumer health information provision. An

analysis and discussion of these three methods of service provision and the institutional pressures that may have influenced the establishment of the different approaches and implications of the findings will be addressed in Chapter 6.

Chapter 5 Three Approaches to Health Information Provision

“The attributes I described of the director and the library, and the library as an institution and the opportunity of place, combined with the paradox of health needs and access to health information made the project happen.” – *Francine, Foundation member speaking about CHIC*

“Because it’s a public library people will come back. I had one woman whose daughter had fibroids, a year later, her daughter had a baby... you get the satisfaction of really helping people.” – *Public librarian who imitated CHIC in her library*

“We should place our staff where the people go, and the people are going to public libraries.” – *Medical librarian, Academy of Medicine*

5.1 Introduction

While I was conducting my assessments of library practice, I uncovered three different approaches to consumer health information provision. In one public library, which serves as the central library for a public library system, they had established a consumer health information center (CHIC) through grant funds from a local foundation. This discovery led to the following research questions: what spurred the central library to pursue this model of health information provision? What were the institutional forces and organizational factors that enabled the center’s creation? Who were the individuals involved, and what role did they play in the community? Is the CHIC still utilized, has it been replicated or imitated? To explore these issues, I interviewed the key players involved in the establishment and maintenance of the CHIC, reviewed all the documents related to the CHIC (e.g. annual reports, grant applications, minutes of meetings, etc.), and spent some time observing activities in the CHIC.

The CHIC approach was imitated in another library in a neighboring library system. In this case, the individual who spearheaded the initiative was a reference librarian within the public library where she created a consumer health resource center. I visited the center and interviewed the individual responsible for its creation in order to better understand her efforts and motivation, and to try to identify the roles of institutional and organizational support and influence in the establishment of the center.

A differing model of health information provision was identified in another state. In Delaware, a statewide consumer health initiative was enacted through collaboration between the Division of Libraries and the Academy of Medicine (a private non-profit organization), initially using funds from the state's tobacco settlement. A medical librarian was posted in a public library in each of the three counties in the state; these individuals were supervised by personnel from the Academy of Medicine. This differing and somewhat unique model of health information provision led to the same questions that inspired the case study of the CHIC: what were the institutional forces and organizational factors that enabled this approach? Who were the individuals involved, and what role did they play? What effect did this effort have on health information service provision? In this case, I reviewed documents and also undertook interviews with personnel from the State Library, and medical librarians from the Academy of Medicine.

In this chapter, I will address each of the three approaches to consumer health information provision separately. The next chapter, Chapter 6 includes a discussion and analysis of the results presented in both this chapter and in Chapter 4.

5.2 Case Study: The Consumer Health Information Center (CHIC)

Consider this scenario: you live in a small town and are diagnosed with a chronic health condition, so you go to your local public library to look for information on the condition. When

you approach the reference staff you are told that the library doesn't answer health queries; in fact, they have a policy that suggests they should defer all queries that are related to health.

Fast forward fifteen years: you are discharged from the hospital in the same small town and referred by the medical staff to the local public library for follow-up information on managing your condition. The public library has dedicated space and resources for a consumer health information center (CHIC) and the center is staffed by a full-time medical librarian. The medical librarian is on the patient education committee of the local hospital and works closely with the hospital librarian to identify community needs and trends. She offers training courses to the hospital staff in cooperation with the hospital librarian. The two organizations have coordinated collection development and regular daily contact. In fact, when the hospital librarian goes on vacation, requests are referred to the medical librarian at the public library.

It doesn't stop there; advertisements for the CHIC are seen throughout town, on pharmacy bags and at the local supermarket. The medical librarian, though physically located at and employed by the public library, is well ensconced in the health care community. She regularly conducts assessments at nearby outpatient clinics to determine the most prevalent health conditions; information packets on those conditions are compiled and distributed. The medical librarian also offers continuing education courses to other public library staff and is qualified to offer continuing education classes leading to the Medical Library Association's certification in Consumer Health Information Specialization.

This scenario is a true description of the evolution of health information provision in one community, the location of the case study. How does such a radical change in approach to health information provision come about?

5.2.1 Background

In order to consider this change, it's necessary to back up a bit and examine the library, its leadership and its relationship to the community. The library where the CHIC is located also serves as the central library for a cooperative public library system. As such, historically it has been tasked with assisting member libraries of the system with reference and program support. The population of their legal service area is just over 50,000. After years of advocacy on the part of the library director and board members, the organization became a special legislative public library district in 1992, which means they are an independent taxing authority. Major renovations were completed on the physical facility in 2009, and the library currently boasts record attendance of close to half a million visits in 2011 and circulation numbers approaching the million number mark that same year. The library is filled with spacious stacks and inviting spaces, including a dedicated teen area in an enclosed space. Located on the village green, the library facility is incredibly inviting, bright, light-filled and very busy.

The community where the library is located now has a thriving downtown, with a number of independent businesses, including a variety of specialty shops and restaurants. There are some in the community who attribute the revived downtown to the successful library renovation. According to one gentleman I encountered, "that library changed the downtown...not too long ago, it was pretty down in the mouth around here." Another resident stated, "there was a true depression when the forestry industry left, the town was dead except for the library... now there's a renewed vitality, the library was always a place...where there was hope and real productive optimism could be born."

Please note, in this chapter direct quotations from documents are signified with italics, while quotations from individuals during interviews are not, in order to distinguish between the two data sources.

The CHIC was established in 1999, but it appears that prior to this innovation, the library pursued projects that involved the health care community and health information provision. Nine years earlier, a collaborative effort between the library, hospital and local business was described by the library director in the 1990 annual report: *“Certainly one of the highlights of 1990 was the receipt of a grant from McDonald charities...the Library, in conjunction with (the) Hospital, will be able to completely outfit a Children’s Library in the Pediatrics Department.”*

Thus, the role of central library extended beyond serving member libraries and included outreach to other organizations in the community. The local representative from McDonald’s assisted in the grant submission. The project signified what was then an unusual collaboration between the public library, the local hospital and a local business and also demonstrated the library’s penchant for reaching community members. The grant provided a wide range of library services to hospitalized children, including regular storytelling hours by library staff. The library director took advantage of an opportunity to reach members of the community who might not have been regular library users. According to the library director’s description in the annual report, *“...the hospital experience may be the first time a child is exposed to a variety of library materials.”*

Health information was also on the library’s radar screen at that time with an emphasis on “professional” staff, and the role of central library as resource provider for members - from the same 1990 annual report: *“Collect calls from member libraries were accepted so that Library professional staff could answer questions using the resources of the Central Library....most*

frequently used database was MEDLINE.” Involvement with other organizations within the health care community was evident in subsequent reports. In the 1991 annual report, reference assistance was documented as having been supplied to a wide variety of professionals in the health care community, including: public health nurses, county nutritionists, the local Senior Center, medical social workers from the local hospital and home health aides.

The importance of professionally trained staff was highlighted again in the 1991 report: *“Reference service at (the) Library is performed by... professionally educated librarians. The librarians have a total of 6 Masters degrees and a total of 65 years of searching experience.”* Additionally, health information was highlighted again this year: *“45 on-line searches...on the...**Medline**, and other databases... searches included: heart defects in children...multiple sclerosis and the eye...curriculum material for women’s health care.”* (bold original)

In this era before Internet database searching, impending CD-ROM database purchases were showcased: *“On order soon...the most exciting of the two is **Medline**... access to the most extensive bibliography of medical articles available. The majority of database searches performed during the past year have been on medical topics.”* (bold original) The library administration was attending to the resources patrons were utilizing, with health information provision at the top of the list. Also in this 1991 report, we are reminded of the collaborative project described in 1990: *“‘The Library Prescription’ became a reality on October 2, 1991...Those attending included (the) Mayor, (the) President of (the) Hospital...TV (#) which broadcast the event...featured on the front page...”* The library administration leveraged the successful completion of the project for a positive press event that involved leaders of institutions from the greater community such as the hospital and local government. When I recently asked the library director, Laura, about the project, she replied, “Yea, wasn’t that a great

idea? They (the patients) took all the materials though, and never returned them, and the hospital ended up taking the space back – it’s not there anymore.” Laura did remain willing to try new approaches to health information provision after this (failed) attempt, however.

The following year, 1992, reported a continued effort to serve the community’s varied health needs. The library received a NYS Developmental Disabilities Planning Council Grant for \$50,000 over a three year period to create a resource center within the children’s department for parents, a “Family Focus Center.” The Center was primarily for families with children with developmental disabilities, but the annual report stressed that it was to assist all families. Health information was addressed in the reference section of the 1992 report: new CD-ROM databases were added, including Medline. We are reminded of the collaborative relationship with the hospital. The library announced a special arrangement with the hospital for faxing journal articles from their medical journals collection to the library, if patrons had a request and so desired.

We are once again reminded that the library was proactive when it came to health information provision in the 1993 annual report. Medline was featured in the reference department’s section:

“MEDLINE ...which we added last year, has assisted patrons with searches of topics as varied as cancer, veterinary medicine and the philosophy of hospice care. The most current information normally appears in journal articles long before it is published in the books, so this database makes available to the public and the medical profession the most recently published information.”(bold original)

The importance of health information to empower individuals and the library as a resource for such was reiterated: “... will allow patients to do a search to help their doctors become better informed about the patient’s particular problem.”

In keeping with their position at the forefront of health information provision, the annual report in 1994 highlighted access to four new databases and included the “*Health Reference Center.*” The theme of the importance of timely and accurate health information persists, as does the emphasis on librarians as professional staff: “*To keep abreast of professional developments, members of the reference department attended conferences and workshops.*”

The 1996 annual report reminds us how far we have come in such a short time with regard to access to health information: “*we can now provide information that would have been all but impossible before the advent of the Internet.*” The importance of keeping up to date and professional staff development were also justified: “*To help keep staff informed, numerous workshops were attended...Reference staff attended the NYLA Conference...Professional development is of vital importance in the quickly changing world of information science.*”

Community involvement with other agencies also remains apparent throughout the annual reports, for example, from the 1997 Director’s section: “*The library district is an example of successful inter-governmental cooperation.*” Once again, health issues were featured, the Family Focus Center is highlighted, with a description of the collection and activities available there, such as a developmental screening for children. Anecdotes are used to illustrate the importance of health information in the Adult Services section of the report –

“Librarians help members of the community every day to find medical information on our online terminals and via the Internet. Books with medical information are among the most heavily circulated in the library. This information is of vital importance... From the gentleman whose wife has just been diagnosed with Alzheimer’s disease, to the young man who had agreed to a bone marrow transplant to help save his brother who was a cancer patient, connecting these people to information, in book format and via computer, is how staff serves the community.”

The library not only identified health information as an important area of service provision, but wholeheartedly embraced and celebrated their success in providing it.

The director continued to use the annual report (1998) as a forum to point out the value of trained professional staff and library services: “*The professional staff of (the library) is its greatest asset and their daily interface with the public creates a keen awareness and appreciation of the needs and requirements of the public they serve.*” Health information was mentioned in the section on reference services yet again. In fact, only one annual report during the nine year period (1990-1999) before the formation of the CHIC failed to mention or highlight health information, the 1995 issue, when much of the report for that year was dedicated to discussion of the library’s failed budget vote. Thus, while the CHIC may have appeared to be a stand-alone project or innovation, the decade long collaborative relationship and involvement of the library staff with the greater health care community points to an organizational mindset and underlying logic that may have helped to set the stage for its creation.

5.2.2 Establishment of the CHIC

In my interview with the library director, Laura, she explained that the need for the CHIC was initially identified in 1998 by a local community leader, Francine, who also was an advisor to a local foundation. This community member is a self-described, “longtime library ‘passionist’.” She met with the library director, Laura, whom she had known from other contexts. They had both served as members of the Libraries for the Future, an advocacy program for libraries. When I interviewed Francine, she observed, “this was a fairly long time ago in terms of the Internet, but there was a flood of information that required navigating... so that consumers had help, I talked with (the Foundation) and Laura.” When Francine asked Laura about the increased need of consumers for guidance with regard to health information, Laura responded that the library “didn’t have a medical librarian.” This is interesting, given that throughout the eight years prior to the meeting Laura regularly lauded her staff for answering health queries and

highlighted the library's efforts in providing health information with access to the medical literature and databases in the annual reports.

Laura and Francine agreed that creating a center within the library, dedicated to consumer health information provision, was a viable option for responding to community health information needs. Francine thought she could find money to provide this "cutting edge service." Francine also recommended including both rural and urban participants for a stronger application. Laura had a relationship with staff at an urban library, and asked them to partner on the grant. The plan was to share a medical librarian, and then the urban library could absorb the position. Laura wrote a grant to the local foundation, with about half of the funds allocated for hiring a medical librarian. They were successful and received the initial one-year grant, according to Laura: "It was meant to be a pilot project and a model program for the state to provide training for librarians – the work was meant to be delegated to the medical librarian."

The library Board approved the grant once it was received, but otherwise they weren't involved in the process, according to Laura: "They asked 'do you really want to take this on? But they let me do it, because it was good will toward the library, and funding too.'" Laura continued, "The hospital president was on board and another staff member at the hospital was involved...He also wrote grants to (the foundation that funded the Center), so there was some crankiness with him at first." Laura's history of involving the community and communicating her goals for library service helped in her efforts to get the center off the ground once the funding was in place. She explained the process, after the grant was secured: "There was a committee from the medical community and the hospital and the community. Some of the hospital people were hostile until they learned that our intent wasn't to give advice."

The library system of which the library is a member was not involved in the process. I asked about other community members' involvement in the project, such as local schools, Laura said, "No, the consumer health information initiative was for adults, so the schools weren't involved." When I asked if the local Chamber of Commerce was involved, she said "No, it wouldn't make sense to go there." I then asked about local service organizations (e.g. Rotary, Kiwanis, etc.). Laura said that they give book money to the library, but they aren't and haven't been involved in health information. Laura is an individual member of Rotary and travels for them to act as a translator on projects and in local clinics in Central America – but this is on her time, and not as an affiliate or representative of the library.

The local community leader Francine described her vision for the CHIC:

"The health (information) center had the advantages of the library as commons, and the navigators or librarians, could link the advantages at a time when there was a widely documented rising of health information, leading to insecurity of health consumers... the credibility of the (named) library, and libraries generically made it seem like a logical leap."

Because of her beliefs and respect for libraries in general, Francine assumed the library was a logical outlet for the provision of health information. She elaborated further with specific reference to the library director: "We had the advantage of the institution of the library as a commons, and the advantage of an individual who was visionary, service-oriented, and practical."

Francine was ensconced in the community and very well-versed in the characteristics of the area and the health of the population: She described the region as an underserved area, and the population as disadvantaged with regard to health status. She explained that the town was already a medical destination because there was a regional hospital there, and that the library was a service provider in terms of information, so health information provision was a logical leap. In the choice of a partnership between the rural and urban libraries, she explained:

“I thought it would be good to pair urban and rural libraries with the possibility of creating a model, that’s where you learn the most... need institutions amenable to evaluation... that pay attention to services, are willing to take risks and have a tolerance for failure, then the learning curve is served... not a large foundation, it’s modest, and the focus is on start-ups and the learning curve, the distribution of knowledge.”

According to library director Laura, the urban library “got more (funds) from (the Foundation), they wanted to be in the big time, they were ready to spend money in the big city.”

5.2.3 Health Information Services Partnership

The library director’s report in the 1999 annual report started off with a description of the center:

“In 1999, the library again created new programs and services to respond to client needs. A major grant from the...Foundation allowed us to hire a medical librarian and to start the planning process to implement the (name) Convalescent Care Information Center. The library will provide health information to persons convalescing from medical procedures and operations with our partner, the (name) Hospital in early 2000.”

A new section was added to the annual report this year, penned by the newly hired medical librarian, Marie, listed as the “*Head of Health Information Services.*” In the report, Marie explained that the project was primarily to develop a model public library information center to aid recuperating patients. She emphasized that the goal was to help patients and their families to find high-quality health care information. Her duties were described as: coordinating activities at the two pilot sites (the rural and urban locations), ordering materials (including database subscriptions), and training reference staff at both sites. The hospital and a local primary care consortium were listed as partners. In the listing of staff on the annual report, there was a new section in 1999, Health Information Services, and the medical librarian was the sole staff member in the department.

In the 2000 annual report, there was evidence of the library director’s involvement in the greater professional public library community; Laura was appointed by the ALA President to serve as the Chair of the Sister Library Committee of the ALA. Another section of the annual

report was added this year, Computer services. In this section, collaboration or partnership between the library and the primary care consortium extends to connectivity: *"As part of the... Information Center Grant, the ... Primary Care Consortium and Library were connected with a 56K Frame Relay line. This line connected the library's medical database computer station to the...Primary Care Consortium's WAN."*

The theme of the value of "professional" staff continues, as re-stated in the reference department's report in 2000 (p.8): *"...the professional staff in the Reference Department used new technical skills and traditional methods in providing information..."* It appears the broader library organization supported professional staff development; the report acknowledged the Friends group for sponsoring reference librarians' attendance at the State Library conference. Health information was also mentioned in this section, with a list of databases available from patrons' homes, including the Health Reference Center.

As in the 1999 report, the 2000 report included a section for the Health Information Center, with a description of the progress that had been made. The report stated that the library had received another grant from the foundation, in the amount of \$127,626, to continue the development of the local CHIC, and the development of the Center at the partner urban library as well. Activities completed by the *"Medical Librarian"*, Marie, included purchase of a designated medical computer and specialized software. Training with all of the reference librarians on the use of new databases and the basics of medical reference service at both the rural and urban libraries had been completed too. The partnership with the hospital and primary care consortium were also mentioned again.

The Library Board president, in the 2001 annual report, outlined the grants that were received by the library, including another round of funding for the consumer health education

and information project, characterized as “*a cutting edge service.*” Also in this year’s news, the library trumpeted their success:

“In 2001, (the) Library received the highest award a library can receive in NYS. The Regents Advisory Council on Libraries selected (the Library) to receive the 2001 Joseph F. Shubert Library Excellence Award, specifically for the establishment of the (Health Information Center), which provides consumer health and medical information to patrons.”

According to the announcement of the award by the Regents Advisory Council, the center was receiving between 15-25 requests per week for in-depth medical information, and between 20-25% of total reference questions were health related. The Library also received the Annual Archives Award for Program Excellence that year as well.

The “*medical librarian*” reported in her section of the annual report that she had purchased health-related books, newsletters, videotapes, and subscription databases to facilitate access to health and medical information. She reminded patrons that they could do their own research or “*call the library to have a professional librarian assist them.*” This year the library created a health section on their web page with links to authoritative health information.

In 2001, plans to expand the program were announced. The medical librarian started working with staff in a neighboring library system to provide medical reference training. The Center received funds from New York State for the initiative, in the amount of \$30,500 for a nine month training project with librarians in 21 counties. Annual reference questions continued to rise as reported in the 2002 annual report, with Health Information Services included as one of the departments responsible for the increase. The report stated that on average, combined central library staff answered 200 reference questions a day.

5.2.4 Health Information as Integrated Library Service

The year 2002 signaled a shift from announcing a new program to discussion of one of the library services, from the annual report: “*The (Center) has become an integral part of the*

Library's service program... provides professional health-related research...In 2002, the medical librarian helped over 500 people by answering their health-related questions!" The wide variety of materials available at the Center at this time included 32 medical newsletter subscriptions, over 250 health related videos, hundreds of health related books, and specialized databases covering common medical conditions, rare diseases, herbals, and "even doctors' credentials."

Again, there was an emphasis on professional activities and recognition. The library became an affiliate member of the National Network of Libraries of Medicine (NN/LM) this year. The medical librarian was invited to serve on the NN/LM Regional Advisory Committee to represent the consumer health issues for all public libraries in New York, Pennsylvania, New Jersey and Delaware. In 2002, the medical librarian trained 82 staff members from 43 public libraries in five partner library systems. Additionally, she was invited to participate in a nationwide television broadcast by SUNY's School of Public Health Continuing Education Committee. The program she created: *From Snake Oil to Penicillin: Consumer Health Information on the Internet* was broadcast from the NY Network television studio to 50 public health sites in NY State and 90 public health sites nationally.

In the 2003 annual report the foundation's name, which used to be included at the front of Health Information Center, was replaced with the library's name – the foundation was no longer providing funding support. The integrated nature of the center was apparent, with phrases such as "(the) Center continues to provide health related information... has become a valuable asset to the community. (The) Medical Librarian continues to answer questions from health professionals and the public (underline mine). Note that the fact that the medical librarian worked with "health professionals" was also mentioned.

Also this year (2003), funding for projects overseen by the Center had been augmented. Funding from the foundation was awarded to replicate the program in three other public libraries across the state. It appears that these programs did not get off the ground. Funds were also received from the National Library of Medicine (NLM) and New York State sources. The funding from NLM was to extend training to librarians across New York State, funding from the State was to provide training for teens on accessing consumer health information via the Internet. The library hired a part-time librarian for the effort with the teens; the following year she became the health information librarian when the medical librarian left for a position in another public library system.

During my interview with the medical librarian, Marie, she recalled that from 1999-2004 she wrote a lot of grants, some were unsuccessful, such as one to a local funder to produce a video to be shown on the closed circuit hospital channel, urging patients upon discharge to go to the library for health information. She explained: "For the Foundation funds, the idea was the first year was planning, the second year implementation, and the third year evaluation." To keep the robust nature of the program, Marie regularly explored additional funding opportunities.

The library was awarded the "Blue Ribbon Consumer Health Information Recognition Award" from the National Commission on Libraries and Information Services (NCLIS), a commission appointed by the President in 2004. The State Librarian nominated the library: "...acting as a model in providing outstanding health information services to their community and sharing their expertise with other libraries in NYS... clearly deserves the... award." This year marked a turning point, in that the medical librarian who started the center left; on the staff page of the annual report there is no longer a "*health information services*" department; and the

medical librarian's replacement, Rebecca, is pictured with the reference department, though her photo described her as "*Medical Librarian.*"

Over the course of her five year tenure, Marie travelled across New York State teaching consumer health at a number of libraries and library systems. During that time, she received a phone call from NLM, "at this time consumer health was becoming important to them," to ask about nominees for a Consumer Health Advisory Committee, by the time the call was finished, they had asked her to become a member of the committee. The NLM also needed someone to develop courses for the National Network of Libraries of Medicine (NN/LM) regional area and a consumer health librarian to teach the courses. Marie developed the courses (on her own time) and then taught them. Her knowledge of the organization and resources of the NLM paved the way for her participation. She described the rural-urban partnership:

"The project involved (a NYC library) too – they hired a medical librarian. The first person didn't work out, the second was fabulous, and she tried to encourage health care providers to come in and to do medical reference. (They) didn't establish the relationship with the hospitals as (our library) did, their attitude was, 'it's hard, things are different down here.'"

The original plan for the medical librarian position to be absorbed by the urban partner was not borne out.

Besides teaching consumer health to library staff all across New York State, Marie also developed continuing education courses for the Medical Library Association (MLA) Consumer Health certification program and taught them in other states as well. After leaving her position at the CHIC for a non-medical, public library system position, Marie continued teaching in a variety of venues, but then worried that she may not be up-to-date with current information and practices, and decided to discontinue teaching in the area of consumer health information.

The 2005 annual report still included a full-page for the Health Information Services section, penned by "*Consumer Health Librarian,*" Rebecca; though the photo of Rebecca in the

section was the same photo from the 2004 report and retained the label “*Medical Librarian.*” The CHIC still appeared to be vital – “...*provides access to the most up-to-date health information through its website which received almost 30,000 ‘hits’ in 2005...Teen Health webpage received on average over 75 ‘hits’ every month.*” Programs that were co-sponsored with other members of the health care community included a local diabetes educator and a local chapter of the National Alliance of the Mentally Ill (NAMI). Goals for the CHIC this year included: to be a model for other libraries; increase services, programs and the use of online resources; and to provide health related computer classes. Unlike the reports from the 1990’s and the early years of 2000, the hospital was not mentioned in this or any subsequent year’s reports.

In 2006, the report from the Health Information Services department was allocated to a third of a page, and primarily described statistics and services that were available. Though the report is signed by Rebecca, “*Consumer Health Librarian,*” the text of the report stated “*The Medical Librarian is available...*” Classes were offered on teaching patrons how to use the Internet and the library’s online resources to find health information. During my interview with Rebecca, I asked whether the CHIC still offered training for the public or member libraries on how to evaluate websites. She answered: “We did do public training on evaluating websites, but half the class couldn’t use a mouse and keyboard, so there was a lot of technical training and it was frustrating.”

The 2007 report announced recertification of the medical librarian at a Level II in the Consumer Health Information Specialization from the Medical Library Association. This certification is good for three years, and Rebecca didn’t seek recertification when her Level II certification expired in 2010. The reports from the Health Information Services department in 2008 and 2009 focused on increased usage. The 2008 report starts with: “*2008 saw an increase*

in the usage of the Consumer Health Information Center (CHIC).” In the 2009 report, it was specified that the increase was in comparison to 2008: “*The Consumer Health Information Center (CHIC) continues to see an increase in usage from the previous year.*” In 2007 there were 134 information requests fulfilled, in 2008 there were 137 and in 2009, there were 148 information requests fulfilled. Those numbers don’t come close to the 15-25 questions per week reported in 2001 or the 500 total reported in 2002, however, as discussed later and seen in Tables 5.1-5.3 below. In 2008-2010, Rebecca was identified as a “*Medical Librarian.*” The partnerships with the health care community that were mentioned in the 2009 report included: “*local MVP health educators, and a health educator from the ...Diabetes Network.*” In 2010, partnerships were again with MVP and with the Lyme Disease Foundation (they screened a documentary at the library). The use of the Community Room for the Red Cross to hold blood drives was also mentioned as a service in 2009 and 2010. Many rural public libraries, if they have the space, offer this service to their communities. In 2011, there is no longer a section for “*Health Information Services*” in the annual report.

On fourteen separate visits to the library over the course of eight months, I unobtrusively observed the CHIC, to see if patrons were using the resources there. In those fourteen total hours of observation (one hour per visit) over varied days of the weeks and time periods, I never saw a patron in the area, nor browsing the health information shelves, using any brochures, or the computer dedicated to medical research. From month to month, it appeared that the materials had not been touched, as evidenced by dusty upside down brochures in the same bins. It could be that patrons start their health reference interaction at the reference desk, but as a CHIC, this area of the library presently appears to be under-utilized. Also, in seven casual encounters with individuals in the town (e.g. hotel receptionist, woman in grocery store line adjacent to me, shop

owners, etc.), all of them spoke positively about the library, but none of them were aware of the CHIC or its specialized health information services.

5.2.5 Organizational field members

If we return to DiMaggio (1991) and his concept of the organizational field, we are reminded that in order “to understand the institutionalization of organizational *forms*, we must first understand the institutionalization and structuring of organizational *fields*” (italics original, 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).

To better understand the effect of the organizational field on the formation of the CHIC, first I will consider the affiliations or primary organizational field memberships of the individuals involved during the initial or beginning phase of the center. Figure 5.1 (below) is a simple pictorial depiction of those affiliations and the relationships of the primary actors involved in the creation of the Consumer Health Information Center (CHIC). In the Beginning phase, the primary individuals involved were Francine, from the nonprofit community field, who pitched the original idea to the library director, Laura. Francine and Laura knew each other previously through a variety of work connections. They had worked on the advocacy project “Libraries for the Future” together, and Francine knew Laura through the programs (e.g. the independent film series) offered at the library. Francine got to know the library director and “admired her deeply.” She stated, “I’ve learned that for any project to be successful, it needs a strong anchor or person to carry forward from the outset, from the first idea.” She added, “Laura is a remarkable force, they offer a wide range of services.” Francine referred to Laura as having

“revolutionary patience, determination, and pure skill.” Laura’s organizational field membership was primarily the public library community. The medical librarian who was hired, Marie, identified her primary affiliation or field membership at the time as the medical library community.

The overlap of field interaction occurred only at the individual level. The library director, Laura, straddled the three organizational fields, but through her connection to the two individuals, not at an organizational level. Although the director had been involved in previous projects with the medical or health care community and had an open-mind with regard to expanding service provision, she had no affiliation with the medical library community. Her previous involvement with individuals in the health care community may have helped to pave the way for the establishment of the center, but did not seem to enable the library to sustain the initial level of success garnered by the original medical librarian after Marie left the CHIC.

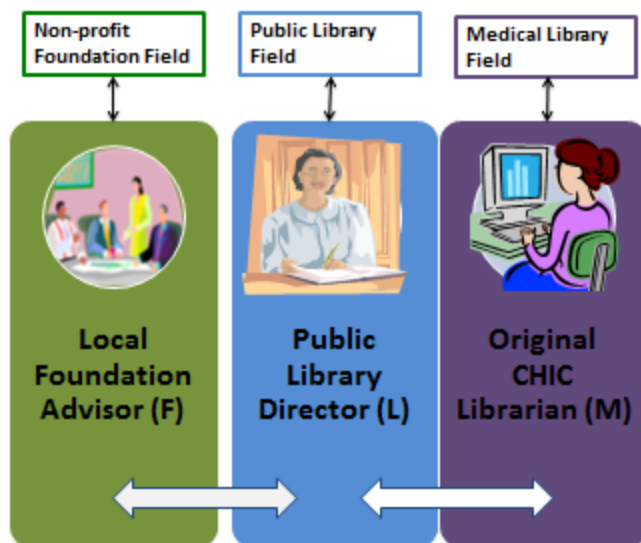


Figure 5.1 - Beginning Phase, CHIC Creation

The close and integrated relationship between the medical community and the CHIC was largely due to the role of the medical librarian who was hired, Marie. Her primary professional affiliation was in the academic medical library community; this was her first job in a public library setting. Her connection to the public library community started with her position in the CHIC and her primary relationship within that community or field was with the library director. Marie was hired at a senior administrative level and reported directly to the library director, Laura. The library director described Marie as: “a dream come true; good at networking, outgoing, a gem.”

Figure 5.2 depicts the time period after the Center was established, with Marie in charge of the CHIC. I refer to this period as the Operational phase. According to the medical librarian Marie, one of the first steps was her hiring, then setting up an advisory committee comprised of local physicians, rehabilitation nurses and the hospital librarian. The advisory committee gave input/ideas for activities. Marie said it was “an open and transparent process,” and gave the committee the opportunity to look at materials and to “have them on our side.” From her socialization into the medical library profession, she had learned the importance of “having physicians and staff on board.” Marie’s background and affiliation with the medical library community and organizational field guided how she approached the process.

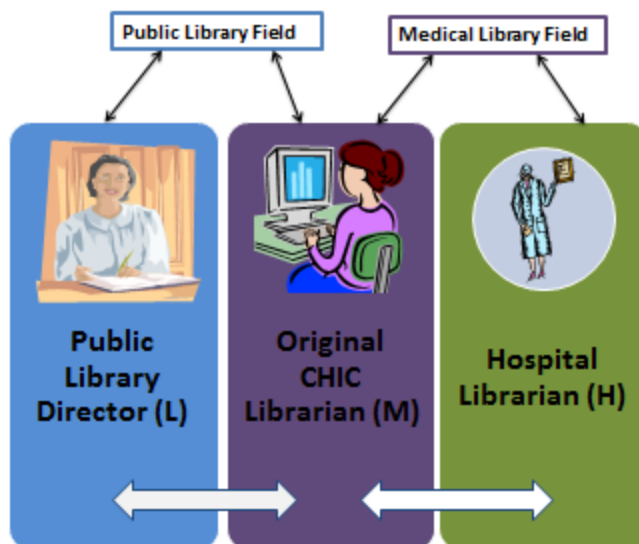


Figure 5.2 - Operational Phase of CHIC

Marie and the local hospital librarian (Helen) already knew each other when Marie was hired. They had a well-established relationship professionally through membership in the local chapter of the Medical Library Association (MLA). Their outlooks on health information provision were similar; they shared the same viewpoint in terms of information access as a means for empowering consumers/patients. The bridge between the medical library community and the public library community (for the Center) was primarily based on the individual level connection between Helen and Marie and didn't extend to reciprocity between the organizations at the organizational or field levels. For instance, Helen didn't attend meetings at the public library.

Marie explained her vision for the center to Helen, primarily for more consumer-based materials. Marie stated that they had "an incredible working relationship." They regularly

discussed what resources they were purchasing and worked to have complementary collections, without duplication of resources (e.g. databases, books, and/or materials). Marie was on the Patient Education Committee at the hospital, and attended the monthly meetings. Marie recognized that for the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) accreditation, the hospital needed to revamp their patient education materials, and she helped with that effort. According to Marie, “The hospital was behind the CHIC 100%.” After the center was well established, Marie became active in the public library community as well. The library director, Laura, had been long active in the public library community, and in the larger community her library served (e.g. ongoing and active membership in local service organizations). Laura was not at all affiliated with or involved in the medical library community.

The hospital librarian described her organization’s relationship with the public library’s CHIC, and with the medical librarian Marie. She said they were on the phone to each other 3-4x/day. She remarked that “with her background,” Marie knew that the hospital had things that the public library didn’t have access to, so Marie was able to use the hospital and their partnership effectively. She remarked of the project, “You need the right people.” They (Helen & Marie) co-presented at local chapter meetings of the Medical Library Association about the relationship between the public and hospital libraries and how they worked together. When asked if participants were surprised by the working relationship between the two organizations, Helen said “Not surprised, they were excited by it.”

Figure 5.3 illustrates what I describe as the Maintenance phase of the CHIC, and its present state. After approximately five years at the CHIC (from 1999-2004), Marie took a

position in another setting. She was replaced by Rebecca.

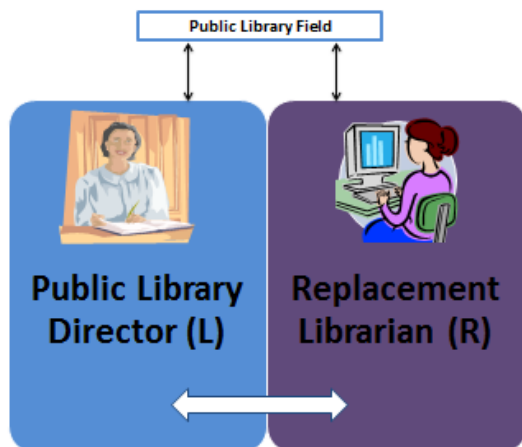


Figure 5.3 - Maintenance Phase of CHIC

Rebecca came from the public library setting, and had no experience in the medical or health sciences library arenas. When she took the position, Rebecca started taking the continuing education courses sponsored by the MLA to pursue a certificate as a consumer health specialist. These are the same classes that Marie had developed and taught throughout New York State during her tenure at the CHIC. Rebecca was certified as a consumer health information specialist, but has let that certification lapse, so she is no longer current.

Prior to her hiring, Rebecca was not at all involved in the medical library community or organizational field. She joined the MLA as an individual member when foundation funding paid for her membership, but now she is no longer a member. She is not a member of the American Library Association (ALA) or the Public Library Association (PLA). Her professional affiliation is with the State Library Association, and because consumer health is less of her job/time now, and she “wears many hats” she said it makes sense to have the State Association as “her home because it covers so many aspects of librarianship.” Rebecca made the observation that Marie

was hired at a more senior level, and was part of the senior management team and that her (Rebecca's) job is more hands-on in terms of library operations. Rebecca is on the reference desk for a shift each day, Marie was outside of the library more and doing outreach. She added that Marie was certified to teach for the Medical Library Association and was a member of the Academy of Health Information Professionals (a credentialing body for the MLA).

When Rebecca spoke about her shift to the position at the CHIC, she stated, "I'm not really a medical librarian, but a research librarian. When I realized there's a research aspect of being a librarian, I saw a need that I didn't realize existed by looking at another perspective." When I asked about programming, she said they didn't offer many health programs any more, that the library was, "in competition with the hospital, they provide programs, and the senior center; it's a struggle, we're not the only game in town" (underline for emphasis mine). It appears the synergistic relationships with the hospital and with the hospital librarian are no longer in place.

Rebecca reported that the numbers for utilization of the CHIC are dropping. She keeps monthly statistics on requests. She attributes this to:

"things have changed since I've started, for the large part folks are looking for things on their own. I'm putting myself out of a job... Google's searching capability is so much better, if you put in diabetes, the Mayo clinic, MedlinePlus and WebMD are in the top. The top 5 hits are all good websites; it's not like 5 years ago where you got random stuff. I like it, but on the other hand, it's a tough time in our profession, things are changing."

There aren't any statistics available for the early years of the CHIC, though the announcement of the Library Excellence award by the Regents Advisory Council in 2001 stated that the center was receiving between 15-25 requests per week, and Laura reported in the 2002 annual report, "*The medical librarian helped over 500 people by answering their health-related questions!*" The years following Marie's departure, that number declined considerably, as seen in Table 5.1 below. These statistics and those in tables 5.2 and 5.3 were supplied by Rebecca.

Table 5.1 - Annual Reference Statistics for CHIC – from CHIC staff

	2004	2005	2006	2007	2008	2009	2010	2011
January	1	15	16	16	18	18	15	14
February	3	15	15	13	6	6	5	11
March	3	17	22	8	17	15	11	10
April	6	23	14	0	16	21	13	2
May	7	12	19	11	17	6	4	3
June	12	1	13	7	17	9	10	11
July	9	0	13	13	13	20	13	8
August	14	0	14	3	9	12	5	10
September	22	8	12	10	12	13	4	8
October	15	26	12	21	8	10	17	4
November	14	14	18	20	0	10	9	12
December	23	20	18	12	4	8	6	7
TOTAL	129	151	186	134	137	148	112	100

Records are also kept on how patrons contact the CHIC. Email contact was more popular in the earlier days of the center, accounting for almost half of all queries. Though there are a number of methods for contact, in-person visits to the library and phone account for the vast majority, as seen in Table 5.2.

Table 5.2 - Method of Patron Contact with CHIC – from CHIC staff

Contacted By	2005	2006	2007	2008	2009	2010	2011	Total
Email	40	34	27	18	7	4	7	137
Fax	0	0	0	0	0	0	0	0
Library	24	81	54	44	63	50	38	354
Mail	0	1	1	8	1	5	1	17
Outreach	0	0	0	0	1	0	0	1
Phone	21	60	48	59	72	50	52	362
Sys. Delivery	0	0	0	0	0	0	0	0
Total	85	176	130	129	144	109	98	871

Table 5.3 shows that library visits account for almost half of the mode of information delivery, with mail, email and phone accounting for most of the other delivery methods. These statistics were supplied by Rebecca from the library.

Table 5.3 - Method of information delivery by CHIC – from CHIC staff

Delivered By	2005	2006	2007	2008	2009	2010	2011	Total
Email	29	30	27	15	19	11	13	144
Fax	1	0	0	2	0	1	1	5
Library	30	89	57	45	74	65	48	408
Mail	23	40	33	38	30	21	18	203
N/A	0	1	5	3	1	2	1	13
Outreach	0	0	0	0	0	0	0	0
Phone	2	16	8	25	20	9	17	97
Sys. Delivery	0	0	0	1	0	0	0	1
Total	85	176	130	129	144	109	98	871

It should be noted that the numbers in Tables 5.2 and 5.3 don't match those for total annual reference statistics. That is, when adding together all the reference encounters for 2005-11, the total is 968; this is 97 more than the 871 reported for contact and delivery. It could be that there's another method that wasn't included, or some encounters weren't recorded in the method of contact and subsequent delivery.

During my interview with Rebecca, I asked how people find her, and she replied mostly through word of mouth, and that the community knows about her, they've "gotten the word out." Rebecca said they no longer do much advertising for the center, they mostly use in-house brochures to market their services. She mentioned that they used to advertise on the bags from the local pharmacy, but she never had a patron come in because of that, at least, not that she knew of. She added: "It's mostly my friend said, someone told me, I heard..." They no longer

provide any outreach with the member libraries, as the (central library's) role has changed and there's less time to do things. The member libraries do attend training (on a variety of topics), at the central library, but as funding has declined, training opportunities have diminished.

I asked about interaction with the greater health community now. She said they do get some patient education groups "probably offshoots through the hospital education- the hospital offers patient education on things like cancer prevention and osteoporosis." The interactions with local doctors and health care providers "haven't been as successful in terms of partnerships." They have had some interactions with the public health community in the past, but she didn't remember many details. It appears that she's not an active member of the professional health care community or organizational field; otherwise it's likely these relationships would have been maintained, or at least remembered. They do display health materials in the upper lobby of the library, usually for thematic purposes, such as breast cancer awareness in October or prostate cancer awareness in March. Rebecca summed up by saying: "consumer health information is now an integral part of library services, and not really a specialized thing anymore."

I also interviewed the library system director, Susan. The library system works with the member libraries, but has no supervision or oversight responsibilities. Susan was not in her present position when the CHIC was formed, but she was aware of the CHIC, and remembered when it was established. She said that in the central library plan is the provision to support continuing education. The central library meets with the member libraries and determines what will be offered. She said, "I can't remember the last continuing education program on medical information, but it was done when Marie was there." Susan also mentioned that Laura had presented at PLA and the State Library Association conferences about the CHIC and shared the information with the broader public library world.

By most measures, the establishment of the CHIC was considered a success. It received acclaim through state and national awards, including the President's NCLIS Blue Ribbon Award for Recognition as a model program in consumer health information. In the words of its primary supporter, Francine: "It was considered a success, and was in place in both libraries, ALA profiled and featured it." With regard to sustainability of the CHIC model Francine went on to say, "It was up to the library community to figure out if it should be institutionalized; it wasn't within the capacity of (the foundation) to institutionalize or fund indefinitely."

In order to better understand some of the possible institutional effects and implications of the CHIC in the library community it served, (e.g. diffusion; imitation; professional level of staff with regard to awareness and use of the resource) I also interviewed some of the library directors in public libraries served by the CHIC. This chapter continues with the results of the interviews with directors served by the CHIC and then follows with a discussion of a library that imitated the CHIC in another area of the state. The chapter concludes with a discussion of another model of consumer health provision in another state and a summary of the three different approaches.

5.2.6 Results of Interviews with Library Directors served by CHIC

I conducted interviews with 10 member directors, selected at random from all 30+ member libraries within the system served by the CHIC. The interviews took place at the libraries and lasted, on average, between 30 and 60 minutes. All of the directors agreed to be interviewed. An interview template was used (Appendix C) and informed consent was obtained in all cases. In two instances, the directors requested and received the interview questions ahead of time. My motivation for these interviews was to better understand the impact of the CHIC, whether member libraries were aware of the service, and whether they utilized it or not. Additionally, I sought to understand whether aspects of professionalization of staff (university

trained experts, signified by possession of a terminal degree; membership in a professional organization) had any effect on level of service provision or adoption of the CHIC as a mode of service provision.

Of those 10 libraries, three of the directors had a MLS; two had a different Master's degree. Three had a Bachelor's degree and the remaining two had some college and a two-year or Associate's degree. The range of population served by the libraries was 400 to 49,000. When asked to identify the most important function of the library within their communities, responses fell into a few categories: programs, computer access, resource provision (materials, recreational reading, information sharing), and a community resource (gathering place). The directors with the least amount of formal education listed a specific program (the summer reading program) and the library as a community resource or gathering place as the most important functions. The three directors with Bachelor's degrees had similar responses, two specified free wifi, and the third responded information sharing. If we categorize "recreational reading" as a type of material provision, the two directors who had a Master's degree other than a MLS listed materials as the most important function of the library in their communities. The three libraries with MLS staff identified programs (generally, not specific programs) as the most important function their library provided (Table 5.4).

Table 5.4 - Most important Library Function in Community - as identified by Library Director and Director's educational background

Library	Director's Educational Background	Most important function library serves, according to library director	Population chartered to serve (rounded to nearest 100)
1	Some college	Summer reading program	2100
2	Assoc. degree	Gathering place	3700
3	BS	Information sharing	1200
4	BS	Free wifi	1500
5	BS	Free wifi	3200
6	M. Eng.	Access to Materials	400
7	M.Ed.	Recreational Reading	5600
8	MLS	Regular programs	13000

9	MLS	Programs	13400
10	MLS	Providing a full gamut of programs	49000

The libraries with MLS level staff were also located in larger population service areas; this is due to the legal requirements set out by the State (larger chartered service areas require a MLS level director by law).

During interviews, I also asked whether directors knew about the CHIC, and whether they referred patrons there for health information. Table 5.5 summarizes the level of awareness of member library directors with regard to the CHIC and whether they did refer patrons there for health reference queries. Eight of the 10 members knew about the CHIC, six had referred patrons to the CHIC and/or had used its services.

Of the four who did not refer patrons to the CHIC, two were not aware of the resource. Of those two, one had been in her position less than a year, and one had started in her position in 2006. The other two who did not refer patrons to the center reported that they didn't feel it was necessary to rely on the resource for health reference assistance; both of those directors had a MLS degree.

Table 5.5 - Knowledge of CHIC by Library Directors and Referral Patterns

Library	Educational Background	Time in current Position	Aware of CHIC Resource	Had referred patrons to CHIC
1	Some college	31 years	Yes	Yes
2	Assoc. degree	10 years	Yes	Yes
3	BS	6 years	No	No
4	BS	20 years	Yes	Yes
5	BS	10 years	Yes	Yes
6	M. Eng.	9 months	No	No
7	M.Ed.	30 years	Yes	Yes
8	MLS	3 years	Yes	No
9	MLS	39 years	Yes	No
10	MLS	3.5 years	Yes	Maybe 2x/year, if that

For the three MLS level staff, the referral pattern to the CHIC was very low or almost non-existent, two had not referred patrons, and the third answered, “Not as much as we used to, maybe 2x a year, if that.” One of the MLS directors explained why they didn’t use the resource: “We probably don’t get many (health) questions, people go online and do their own searching, we don’t interfere unless we’re asked.”

With the exception of the MLS director who had been in her position for close to 40 years, referrals were generally made by directors who had been in their positions longer. Of those who were aware of the service, comments included, “we learned about their services years ago when the Center started” and “weren’t they affiliated with the hospital? I have a vague recollection of hearing about it.” One of the directors commented that she had received a visit from Rebecca at her library, or that maybe she had met her at a meeting, “though it was a long time ago, Rebecca gave out business cards to distribute, I should get more of them.”

To investigate another aspect of professionalization (affiliation with a professional association), I also asked library directors about their memberships in professional library organizations. These included the American Library Association (ALA); the Public Library Association (PLA); the State Library Association, and any other organizations that they thought were related to their positions as library directors. Table 5.6 summarizes those responses. Half of the library directors (five of 10) reported they were members of ALA; six were members of the PLA, and seven were members of the State Library Association.

Table 5.6 - Professional Memberships of Library Directors in 10 Libraries served by CHIC

Library	Educational Background	Time in current Position	Membership in ALA	Membership in PLA	Membership in NYLA	Other membership
1	Some college	31 years		X		
2	Assoc. degree	10 years			X	
3	BS	6 years	X	X	X	
4	BS	20 years	X		X	
5	BS	10 years	X	X	X	

6	M. Eng.	9 months				
7	M.Ed.	30 years		X	X	
8	MLS	3 years	X	X	X	
9	MLS	39 years				
10	MLS	3.5 years	X	X	X	

Four of the library directors had memberships in all three organizations (two out of three who had a BS and two out of three with a MLS). The library directors (two) that reported no memberships had been in position the longest amount of time, 39 years, and the shortest amount of time, nine months. None of the ten respondents listed other professional affiliations, and none of them were aware of the existence of the Medical Library Association (MLA) as another professional organization for librarians, as exemplified by the comment of one of the MLS directors. When I asked about membership in MLA, she said, “I don’t even know what that is.”

To sum up, interviews with the library directors in the system with the CHIC showed: there were a variety of answers for describing the most important function of the library (with all the MLS level directors identifying programs as the most important service); all of the directors weren’t aware of the CHIC; and knowledge of the CHIC didn’t necessarily lead to utilization of the resource. Membership in professional organizations was not universal, and those directors who were in their position the longest and shortest amount of times were not members of any professional organizations.

5.3 Imitation in another public library

During my interview with the medical librarian, Marie, she mentioned that another library in a neighboring library system had also established a consumer health resource center. Marie identified the individual who was responsible for the effort, Georgia, and remembered that Georgia had attended the consumer health courses when Marie offered them through the CHIC.

I visited the public library with the resource center in the neighboring system. We started out with a tour of the consumer health section of the library. Georgia explained that they (the reference staff) realized that health was the largest part of the reference collection; they pulled the health titles out and put them behind the reference desk. When the reference area was rearranged and became smaller, a measure of privacy was lost in the process. They took a corner of “dead space” and put the health reference collection there instead. There are three full bookshelves, and a table with a number of brochures – some are free, some are subscriptions (e.g. *Johns Hopkins After 50*; *Harvard Women’s Health*; *Berkeley Wellness*; *MedlinePlus magazine*; *WebMD magazine*, etc.). Many of the items in the health reference collection are now on standing order. Georgia added to the collection after she took the consumer health classes. She said the courses exposed her to medical libraries (she visited some in the area while attending the courses) and a sense of what people used; this guided her efforts in creating the corner. She used the (donated) services of her husband (a graphic designer) to design a logo using the words consumer health to make the corner more visible.

Georgia received her MLS degree in the late 1990’s. Prior to that, she had been a freelance writer, focusing on children’s health. She naturally “gravitated to coursework on health librarianship, but there wasn’t enough coursework available to specialize.” She said that her colleague Pam (also a reference librarian) experienced the same frustration. Pam had started coursework in pharmacy school, and had switched to pursue a MLS degree. They both tried to “carve out every class they could” (on health sciences librarianship). She said she even did an independent study working with the cancer center at a local hospital to develop patient information, “but it was really tough” (to specialize in medical librarianship). It was “disappointing to graduate without a health information specialty.” Georgia completed an

internship at the public library where she is now employed, and ended up being hired there after graduation. She also has a personal interest in health information, as her son is a cancer survivor.

After being at the library for 4-5 years, Georgia heard about continuing education classes (on consumer health) being offered through the library system, and immediately enrolled. The classes were being taught by Marie (from the CHIC). When she was taking these classes, Georgia learned about the consumer health information specialization (CHIS) credential through the MLA. She observed “this seemed like a good compromise; it takes what the public librarian does and puts it in a formal package.” She took the five course program and had enough credits to qualify for her certificate. The classes included conducting reference interviews in health situations, best resources to use, public health information vs. consumer health information, etc. She finished the coursework, received her certificate and filed it away.

About two years later (early 2006), the library director asked Georgia about being interviewed by the local newspaper to publicize consumer health information as a library service. A reporter interviewed her, asked for specific examples, and wrote up “a great piece.” It was published in the front section of the paper.

“That first day, we got about 12 questions over the phone. There was an astonishing response. It really showed people wanted help” (with health information). “We got one call from a woman, who said ‘I live in Florida, but my daughter lives in (the library community), I’d like to know about...’”

They give periodic reminders to the public about the service, and they put together health information packets regularly.

Georgia is constantly in touch with NN/LM to encourage them to offer more courses on consumer health. Even though there’s now more available online, many are focused on emerging mobile technologies, which isn’t really her interest. She recently finished drug information on the Internet and nursing information (through MLA or NN/LM, she couldn’t recall which). She’s

not a member of MLA, and has to renew her CHIS certificate every three years. She's on her ninth year now. Georgia said when she took the courses offered by the CHIC, the medical librarian (Marie) was a huge proponent of using the best resources, and talked about people "googling their diagnoses." Georgia said MedlinePlus is her "favorite go-to" in terms of consumer health websites. She added that sometimes as professionals, librarians overestimate patrons' capabilities, "I think there's a stumbling block as librarians, we think everyone can evaluate a website."

The consumer health services effort won the library system's program of the year (within the library system in which it was a member) in 2006, and other librarians became interested. Another neighboring librarian had worked with Georgia, and "started something" at her new workplace. Georgia also discussed the uniqueness of the health information reference transaction – "it's such a different reference transaction, ethically, interpersonally, emotionally. I really appreciated the training opportunity to learn how to do it effectively." Both she and Pam have patrons "who have stuck with us for years, so first it might be COPD, then pneumonia..." Pam had a patron for 6-7 years who died recently, and even though the experience was difficult, both Pam and Georgia thought it was great that Pam could help.

Not all of the health questions get referred to Georgia and Pam, if it's a simple query, the reference staff answer it. For more complicated requests, they use the consumer health specialists. Georgia recently presented a summary of the service to the Library Board. There are two attorneys on the Board who were quite concerned with liability issues – she explained to them the library uses a disclaimer on all the packets they compile.

She recently completed an online class through NN/LM: *Beyond an Apple a Day* where they addressed collaborating with other organizations to deliver health-related programs. Georgia

described a project she where she looked at the Diagnosis Related Groups (DRG's) for two local hospitals, she found there were a lot of cardiac diagnostic codes in her area. As part of the class assignments, she crafted a proposal for programs based on the DRG's. She talked about her resulting efforts in collaborating with assisted living facilities to provide programs/information on fitness, walking, nutrition, etc.

According to annual report data, the library answers approximately 60,000 reference questions annually (NYS DLD Bibliostat, 2012). Georgia estimated that 15-20% of reference questions are health related. She and Pam keep notebooks with a record of each consumer health reference encounter. She uses this information to guide collection development. She mentioned that de-selecting (weeding) is a major effort of hers, especially in the circulating collection, this also guides in collection development. At the reference desk, they use a Google docs statistics sheet, but "it's very general, with no indication of the subject." Georgia said she and Pam combined provide about 3-5 very detailed consumer health information packets to individual patrons every month.

Georgia is currently a member of ALA and the State Library Association. She pays for these memberships out of her own pocket, but the library does pay the \$80 fee for her CHIS recertification every three years. She relies on the MLA CAPHIS (Medical Library Association Consumer and Patient Health Information Section) listserv to learn about upcoming CHIS courses. She attends the State Library Association conferences, as much as she can, especially when they're local. The library pays for registration to the conferences, but not for travel. Georgia said that while she wasn't a member of any local organizations, she did serve for a long time on the Department of Health's Patient Safety Committee and Health Literacy Subcommittee (for New York) and on the eHealth Initiative organization.

We talked about training opportunities available through the library system. Georgia said she wished they offered more; her impression is that the western and southern systems are doing training all the time. She feels that her system is more focused on grant writing, not as much with offering training for member library staff. She talked about the local Library Council that oversees academic, school, special, and public libraries, and includes hospital libraries. A staff member at the Council regularly sets up training at the local hospital, which she has attended. There used to be regular meetings with librarians with interests in consumer health, but they're not offered much anymore. Georgia stated that she missed the contact and interaction with librarians who shared the same interest in consumer health information. She mentioned that Rebecca used to attend these meetings, and added, "I think she's actually a medical librarian, not just consumer health." She also talked about the Council staff member's efforts to create a health website to bring together resources, but he couldn't get funding for it, so it didn't get off the ground.

The library hosts "tons" of health-related programs, which Georgia and Pam oversee. Georgia's tried to build collaborative relationships in the community (including local health care providers, hospitals, non-profits, etc.). Examples of those relationships include: A local Care Center (a mobile mammography van that came to the library and parked there annually for the past 10 years - every appointment was filled); the local Medical College ("they have a good marketing department, so it's great to partner with them"); a local hospital; a breast cancer education organization, ("their programs are always well attended"); individual providers (for subjects such as autism, chiropractic, nutrition, Alzheimer's...); non-profit organizations... "The list is huge." Programs are usually very well attended, with about 20 people, but sometimes there's up to 60 or so attendees. There's also a Lyme Disease support group that meets every

month in the library's big meeting room with about 60-70 people. She sometimes helps promote programs for other groups. According to Georgia, when it comes to hosting health programs, you can "use your imagination, the sky is the limit."

After Georgia attended a program (outside the library) sponsored by the Turnpike Rescue Squad where she met the "outreach guy," she picked up file of life cards and magnets where people can record health conditions, medications, etc. The library became the go-to place where people could get these aids. This led to offering programs on CPR for adults and babies, AED training, etc. Georgia said that these relationships in the community have evolved over time.

We talked about health information from non-authoritative sources such as Jenny McCarthy's popular books, and how they handle the conundrum of patron requests for the *New York Times* bestseller, "people like the tell-all, people ask for them, there's a demand." Georgia did refuse to buy the most recent book by Suzanne Somers, "she's so discredited for being such a wacko, but she's not the only one, I can't monitor them all." They rotate book selection (among the staff), through collection tools such as *Library Journal (LJ)*, *Kirkus*, etc. If there's a whole section on consumer health (as there often is in *LJ*), Georgia is responsible for going through it and choosing items. She did pull from the shelves the books "by the guy who does the infomercials, he wrote those books, 'What your doctor won't tell you.'" Georgia added,

"We've never had any doctors marching in, nobody telling us we have some crappy thing on the shelf... but I did once have a nurse who told me about an out of date book on diabetes, and I was happy she did."

The library has 18 staff members (full and part-time) with a MLS degree. Georgia talked about the opportunity for public libraries with regard to health information and mentioned the possibility of training in consumer health information being a required component of the MLS degree, "we've got to get on that bandwagon... there was a recent report from Pew about health information searches by individuals on the Internet, it's huge." Georgia summed up by saying

she wished that a “consumer health library community existed; it’s a bit like working in a vacuum.” She’s just started to consider leaving her position at the public library to pursue a Master’s in Public Health (MPH) degree.

In the case of this example of an approach to consumer health information provision, the resource center was conceived and initiated by an individual. Georgia did receive organizational and institutional support, in the forms of time and opportunity to attend CHIS classes and positive feedback from the library director and board. Unlike the externally funded CHIC, however, Georgia started the service and the center with the resources that were on hand within the public library where she worked. Similar to the MLS level librarians in the library system with the CHIC, Georgia identified programs as an important component of library service. To accommodate this vision of service, she’s effectively incorporated programs into her health information efforts. Although her primary organizational field affiliation was in the public library community, and that was how she initially obtained training in consumer health information, her background and interest in health played a major role in the creation of the resource center. She now has many contacts in the health care community, and an affiliation with that organizational field.

Her efforts have not gone unnoticed by the community; she was nominated by a library patron for the New York Times Librarian of the Year Award in 2006. Georgia’s unfunded efforts and outreach to the health care community have served to create a resource that continues to be well utilized and appreciated by the community.

5.4 Another model: Statewide initiative

Imagine an “embedded” medical librarian who, as one of her duties, oversees a series of children’s summer programs at the public library. The programs aren’t just about reading or

providing entertainment, they include a series of workshops hosted by the local public health nutritionist, where participants learn to make healthy snacks. There's even a community garden next to the library where the children raise their own vegetables. This is just one example of some of the innovative programming that took place in Delaware when a statewide consumer health initiative, through a partnership between a private organization (the Academy of Medicine) and the State Division of Libraries, was undertaken from 2004-2009.

5.4.1 Background and Establishment of the statewide initiative

The Academy of Medicine was created by a group of physicians in the 1930's who "rebelled" against the 30 mile trip to the nearest urban center to the College of Physicians for medical literature. It was designed as a clinical repository for access to medical information. According to Arthur, a former medical librarian from the Academy, medical libraries located in universities and medical schools are a relatively new phenomenon. In the early part of the last century doctors had to use organizations such as the College of Physicians for access to medical literature. The Academy was the state's equivalent of other state's Colleges of Physicians. Part of the founding mission of the Academy was to be open to the public and to provide health information to the public.

Arthur "inherited" his job from an individual who had been in the position for over 30 years. The model of consumer health delivery during that individual's tenure had been "from an ivory tower... we would serve the public if they came to us. There were a select few members of the public who knew about the Academy and would come into the library." Arthur viewed his mission in a different light, and that was to provide consumer health information to all of the public, which included all residents of the entire state. It's clear that consumer health information provision was high on Arthur's agenda, or as he put it, "consumer health has always

been near and dear to my heart.” In fact, Arthur was familiar with the CHIC in New York and had visited in early 2000 when he was vacationing in Upstate New York. According to Arthur, “The (library name) model was a useful model. Ours differed in that a consumer health librarian was based in one library, but was required to make visits to ALL libraries within the county during a month.”

About that same time, (in the early 2000s), the Academy prepared to move to a new location. Arthur envisioned an opportunity after he identified a need for increased access to consumer health information. He proposed meeting this increased need by placing medical librarians in public libraries. He approached the State Division of Libraries and initiated a pilot project that placed a full-time contract health librarian to provide consumer health information service at one of the major county libraries. In subsequent years, positions were added in the State’s two other counties.

Arthur, reported that at the same time he was recommending the expansion of consumer health information services,

The “Division of Public Health had identified critical statewide concerns including disparities in health care... consumer health program was seen as an effective tool for addressing some of the state’s current health concerns, and a good match for current sources of funding available for statewide health information services.” (Consumer Health Information Services: Best Practices in Public Libraries Report, n.d., p. 4)

The funding for the salaries of the three full-time medical librarians including benefits, and modest amounts for health-related materials at the host libraries, program promotion and travel was initially provided through the Health Fund Advisory Committee, otherwise known as Delaware’s “*tobacco money*.” (Consumer Health Information Services: Best Practices in Public Libraries Report, n.d.)

According to State library staff member, Sandy, there are a total of 32 public libraries in the State (depending on how you count, e.g. branch libraries), with a “potpourri of governance”

(some are independents, some are contracts, etc.). There are a total of three counties in the State. The medical librarian from the Academy, Arthur, identified one public library in each of the counties to participate in the consumer health program. He also helped in the process of finding space for the staff and in getting staff settled in their locations. The three (medical) librarians reported directly to Arthur and were employed by the Academy. Their job responsibilities included: confidential reference service, collection development, outreach and education, and developing the health reference skills of the public librarians throughout the State. The consumer health librarians also engaged in programming at the libraries, attended local health fairs, and participated in local activities and in health-related coalitions. They sponsored “Wellness Wednesdays” in the public libraries within their county-based service area, responded to patron health queries with detailed packets of information, and contributed to a portal of local health agencies and services hosted by NLM’s MedlinePlus. Two of the three librarians also worked one evening shift at the reference desk weekly and one Saturday per month at their host libraries. With one librarian located in each county, the initial thrust of the program was to serve as a model.

In two of the counties, a collection analysis was completed, and it was found that the average publication date for nonfiction books was 1985. According to Sandy, the “consumer health was poor... there was a push to weed.” The State supported collaborative collection development, through floating collections; \$60-80K was allocated for this effort, with \$20K invested in consumer health items.

Funding requests for the consumer health initiative were made by the State Library to the Department of Health & Social Services. Table 5.7 is a summary of the records from the State Library on those requests. In 2004, the Academy supplied \$4000 for the effort, and grant funds

were secured in the amount of \$40,000. So, for 2004, total funds allocated for the project were \$64,000. In 2004 and 2005, only one medical librarian was placed in one county. In 2006, two more medical librarians were added in two more counties. Each year of the program, additional funding was requested until funding requests for the program ended in 2009.

Table 5.7 - Funding requests by the Delaware State Library to the Dept. of Health & Social Services for Consumer Health Information Services

FY Request to DHSS for Consumer Health Initiative	2004	2005	2006	2007	2008	2009
Del. Library Assoc. Funds	\$20,000	\$65,000	\$225,000	\$240,000	\$265,000	\$285,000

In 2008, another initiative overseen by the Academy in collaboration with the State Library was proposed: the *Delaware Medical Information Resources Alliance (DelMIRA)*. Its purpose was to “enhance access to healthcare information for all Delaware *healthcare organizations and professionals*” (italics mine for emphasis) by providing access to medical databases and resources for health care institutions and providers statewide. The request for funding for that effort was in the amount of \$800,000 for fiscal year 2008. In 2009 the request for additional funding for the *DelMIRA* initiative was for \$500,000. After 2009, the collaboration between the Academy and the State Library was not sustained. Sandy stated that when the consumer health initiative was started, information support for health care providers (who weren’t affiliated with a major health care center or hospital) was a major concern, and that now “There’s nothing happening frankly, there’s currently no public health or medical library that providers can turn to for health information.” Sandy still views this as an unmet need.

The 2009 report on funding requests stated that from May 2005-April 2006, there were more than 300 information requests fulfilled by the consumer health references services. According to one of the embedded medical librarians, Jane (who started in her position in 2006),

she and her two colleagues combined answered approximately 350-600 questions annually. Jane described working with Arthur on the initiative:

“When he walks into a room, he owns it. He’s so amazing, he should run for office. He had a clear vision and strong personality... He had a business background and was atypical of library administrators. He wasn’t afraid to rock the boat; he was strong minded.”

Jane added, “I mean that as a compliment.” She went on, “He went in there and blew the doors off the little old state. He knew everybody from the governor on down. He was so savvy politically, that got the program going.” Besides possessing a MLIS, Arthur also possesses a MPA (Master’s in Public Administration).

Jane was just finishing an internship at an academic university when she learned about the “embedded” librarian position through a listserv announcement. The posting was her first encounter with a consumer health librarian position. She hadn’t ever envisioned working in a public library before that. The initial opportunity or challenge for Jane (depending upon how you define it) was the entrée to the public library world. “The public don’t know what librarians do.” The first year was largely spent working with the public library staff to familiarize them with the notion of the medical librarian’s role and health information. Additionally, there were differences in how the public libraries valued her services and whether they saw it as a need. In some libraries, there were built-in assumptions, such as “we already have standard resources (e.g. Taber’s medical dictionary or Harrison’s text book), so we’re fine.” In order to provide health information services, it was an ongoing education to learn about the tempo and organizational culture at each site. Some public libraries gave her free rein, while others called upon her services when needed. Jane described some of the aspects of the program as a double edged sword, or a Catch-22. She referred to collection development in health information and said,

“We should have asked what they needed, rather than here’s what we can offer. There’s a very delicate balance between the two.”

Each of the libraries had its own director and each director had his/her own leadership style. Jane was a “contract librarian” and had to be strategic about integrating, and had to learn how each library operated. As a contractor, she was an “outsider somewhat.” Some of the public library administrators were a bit suspicious about the program, as there was a misunderstanding about the funding.

“The embeddedness may have led to issues of trust... it was a challenge to learn the environment and how to use my skill set in a non-threatening way, every community was different.”

Jane was located in the northern county, generally a more urban and suburban location than her counterparts in the central and southern regions of the State. She said that she was 99% certain that all of the library directors she worked with had MLS level staff. She observed a noticeable difference between a MLS run reference desk and one that was staffed with non-MLS staff, with the possession of a MLS having a positive effect on authoritative health information provision. This observation was borne out in the library visits reported in Chapter 4. During my visits, I received authoritative information from MLS level staff in Delaware 67% of the time, as opposed to New York State where I never received authoritative health information in libraries with MLS level staff.

Socioeconomic status and demographic characteristics of communities played a role in the questions Jane received and program expectations. In one area, there were a number of retirees from the local chemical industry, chemists and engineers. The patrons in the libraries in these neighborhoods typically had more formal education and higher expectations than in some of the poorer areas she served. Jane explained that at first it was a hard sell to convince the public they could call or come to the public library with their health questions.

“It isn’t part of the collective consciousness that librarians can answer health questions. There isn’t an awareness of what a medical librarian does, the public is lacking in understanding in terms of what we can provide.”

Jane viewed the creative funding mechanism of the initiative as a blessing and a curse. The program was in the red every year, so she saw the writing on the wall and realized the program wouldn’t be sustained:

“It was established as viable and necessary within the library population, but state funds trickled and the public libraries couldn’t fund it. It was established with private, public and state funding, but no one stepped up when the state funds ran out.”

Jane added that in terms of sustainability, the problem was that the model relied on state funding.

The other two medical librarians stayed on one more year than Jane did. They had a more hybrid work model and made piecemeal arrangements with their host libraries, including more general reference duties. They answered slightly less health questions; the populations they served were more rural. According to Jane, “They were really limping along as consumer health librarians.” When the funding dried up altogether they left their positions. Jane does view the model of public library as consumer health information resource as a viable way to provide consumer health information, but stressed that you also need the involvement of other partners, such as senior centers, community centers, hospitals, and the public health community. “The efficient and effective model has to include public libraries and community-based organizations, but it’s not sustainable in public libraries alones, absolutely not.” Jane went on to say that some libraries have a myopic view, they may talk about outreach, but it doesn’t happen.

“The medical library model doesn’t work with the public library alone, if it’s only in the library world, it’s not going to stick around... There are a lot of people who don’t use libraries for health information.”

Jane emphasized that a valuable outcome of the initiative was that community organizations were reminded of the value of public libraries: “People don’t necessarily know what librarians do, outreach is critical, and it enhances political capital.”

Jane left her position in 2009 and is now enrolled in a doctoral program at a Public Health school. Her area of interest is health literacy. She credits her experience working on outreach and in health education through the consumer health initiative as the force behind her return to school. “Helping patrons so that they can make better health care decisions... I’ve never experienced that kind of satisfaction professionally.”

Arthur left the Academy of Medicine in 2008. According to Sandy (staff member at State Library) the Academy is a private organization, and the relationship with them is no longer as vital as it was when Arthur was there. The Academy had been a member of the State Library Catalog with their holdings included in the statewide database, but no longer participates. Once the tobacco funds were exhausted, the State used Library Services and Technology Act (LSTA) funds to continue the staffing (for another year), but the embedded medical librarians left through attrition after Arthur was gone and they were not replaced. “They needed the direction that Arthur provided.” The respect and admiration of each of the major actors, Sandy and Arthur, for the other was evident throughout the interviews. According to Arthur, without the support of Sandy from her position in the State Library, the project wouldn’t have happened.

Sandy went on to describe a statewide program they’re involved in now: “geek the library” [developed by OCLC, and funded by the Gates Foundation] – which is focused on “organizing data from the view of the patron.” Sandy mentioned that now they are looking for trends and responding to patron needs. “The consumer health initiative was due to a leader’s interest (Arthur), but it might not have correlated to the patrons’ interests.”

There are some advantages of being a small state, including a single statewide catalog. Sandy stressed the need for data to effect improvements in the public library setting. They now review data regularly, not just annually. There are library town meetings twice a year, with all of

the libraries. They used to have annual federal and state plans for expenditures, but now they have consolidated into one five-year plan. Jane (one of the former embedded medical librarians) countered this viewpoint somewhat; however, and made the point that each community was unique, with wide variations in how staff in each of the libraries approached service, and how the libraries were managed and governed. Jane credited the leadership style of the library director as being the most important factor in how the library functioned. In her experience, the small community libraries each had an independent identity and different programmatic approaches. Even though it was a small state with some similarities and advantages due to size, there were vast differences between the libraries and regions within the state.

The consumer health initiative is no longer active – none of the three medical librarians are located in the public libraries. But, the State has remained active in supplying database access for health information; they're "perking along" according to Sandy. When Arthur was at the Academy, he negotiated a consortium license for Ebsco databases for the hospitals, as part of the *DelMIRA* project and there was a statewide license for the Cumulative Index to Nursing & Allied Health Literature (CINAHL) (about \$10K annually) up until this year. The State still subscribes to Academic Search Premier, which includes access to nursing and health content. Anyone with a public library card has access, though it hasn't really been promoted in that way. Sandy noted that the budget for databases was cut in 2008; it went from \$510 to \$350K annually. With regard to the consumer health initiative, Sandy said "we were on a great path, but not so much anymore." She added,

"For projects in specialty areas, such as medical or legal, you need a champion to lead it.... Arthur was [that] champion, he was dynamic, fabulous... he's no longer in Delaware."

Jane echoed that sentiment, she said the project was Arthur's "baby, his brainchild... we could see the value in it, that it fell apart due to lack of funding was heartbreaking."

In order to investigate service provision with regard to health information, I visited 15 randomly selected public libraries in Delaware in summer 2012. The random selection did not happen to include any of the three libraries where the embedded librarians had been placed. The results of those visits and reference interactions are discussed in Chapter 4.

5.5 Summary

In this effort, I uncovered and examined three different methods of consumer health information provision in two different states. One approach, the CHIC, arose out of the local cultural context and was implemented on a regional level, the second approach was initiated on the local level by an individual with an interest in health, and the third was a statewide attempt to provide consumer health information to all residents. All of these efforts were implemented by and succeeded through the dynamism of individuals or partnerships.

Both the regional CHIC and the statewide initiative in Delaware were created, implemented, and funded as model programs. In both of those instances, the projects were conceived and initiated by individuals from outside the public library culture or environment. The CHIC model was, in a manner, replicated, informally. In all three of the approaches, the rise and success of the initiatives coincided directly with an individual's direct involvement in the project. The three individuals responsible for those successes all identified with the medical library culture and socialization into that profession. In the cases of the CHIC and Delaware, the decline of service provision was tied to that primary individual leaving the project concomitant with a decline in external funding allocated for the effort. These considerations and the implications of the findings reported in both Chapters 4 and 5 will be discussed in more thorough detail in Chapter 6.

Table 5.8 is a list of names and positions of all the actors discussed in this chapter.

Table 5.8 - List of Actors

Interviewee's pseudonym	Position
Laura	Library director of central library with CHIC
Francine	Foundation member – involved in creation of CHIC
Marie	Original medical librarian at CHIC
Rebecca	Librarian who replaced Marie as consumer health librarian at CHIC
Helen	Hospital librarian in town where CHIC was located
Susan	Current Library system director
Georgia	Public librarian who imitated CHIC in her public library setting
Pam	Public librarian (also has CHIS certificate) who works in same public library as Georgia
Arthur	Medical librarian from Academy of Medicine
Sandy	State library staff member (Administrator) – Delaware
Jane	Medical librarian posted in public library in Delaware

Chapter 6 Discussion

6.1 Introduction

There have been two strands of this research inquiry. First, I sought to collect empirical data on health information provision in public libraries. For that effort, I visited libraries across geographic locations to assess the practice of health information delivery. As presented in Chapter 4, three separate studies were conducted, combining visits to public libraries and interviews with library managers or directors. Primarily, I found that although patrons are using public libraries for health information, there is a wide variation of service provision and little standardization in terms of receiving authoritative resources for health queries. A logical consequence of this finding is to ponder: what accounts for this variation? Are there organizational or institutional differences that might help to explain how public library staff in different settings approach health information queries?

While the first strand of research concentrated on assessing practice, in the second strand I examined three different approaches used to implement health information provision in public library settings, as reported in Chapter 5. All of these initiatives were a departure from what may be commonly perceived as regular service provision in the public library. In order to better understand how these initiatives transpired, in this chapter I examine the institutional and organizational contexts for each of the three cases. Concepts from institutional theory help to provide the framework for identifying the organizational forces that affected the three approaches to new service provision, in order to inform our understanding of the interaction of factors that affect organizations' functioning, adaptability, and capacity for change. Using these concepts, we can extend our knowledge of what affects the perceived and actual role and

function of public libraries within communities and plan for organizational change and the provision of services accordingly.

The discussion begins by revisiting the differences that were found in health information service provision in the settings served by the approaches, and continues with a look at the influence of the institutional context and organizational field in each of the three efforts. Public library function is explored, and the effect of professionalization on individuals' underlying logics and approach to service will also be examined. Conclusions and limitations from both strands of research are addressed in Chapter 7.

6.2 Three approaches to health information: Differences in service provision

If we return to the results of library visits presented in Chapter 4, there were differences in health information resource provision between New York and Delaware with regard to authoritative (timely, accurate, and consistent with current medical findings) resource referral. Specifically, in New York, in six of 10 public library visits in the library system served by the Consumer Health Information Center (CHIC), I received non-authoritative health information when I posed the reference query, "Do vaccines cause autism?" Put another way, I was referred to authoritative resources 40% of the time. In Delaware those results were almost reversed, in 10 of 15 visits I received authoritative information when I posed the same health reference query.

It should be noted this research was exploratory in nature and was not crafted to be an evaluative effort. Additionally, the approach to consumer health information provision in the three projects I investigated was not the same – one was a dedicated center located in a central library in a library system, one was started in an individual public library, and one was a statewide initiative. Given these considerations, it may be that the different organizational

structures and how the consumer health initiatives were instituted played a role in the difference in the adoption and diffusion of health information resource provision.

First, it's important to note that there were differences in the timing of the efforts. The CHIC was established in 1999 and was most active and influential from 1999-2004; the neighboring library effort started in 2006; and the Delaware initiative began in 2004 and ran through 2009. The investigations to assess library practice in the regions served by the CHIC and the Delaware effort spanned 2011-2012. Availability of health information, mainly through access to the Internet and online resources, escalated dramatically during the time of the differing initiatives, as did familiarity with using those resources. Also, because the Delaware initiative ended fairly recently its residual impact may be stronger when compared to the effect of the CHIC on member libraries.

If we consider the library visits in both systems in New York, five out of 20 responses referred to online resources, and out of those five three were deemed to be authoritative (two to a health database available through the library system, one to MedlinePlus; the other two (non-authoritative) were referrals to Google). The total number of authoritative responses was seven (out of 20 total visits), so even though online referrals accounted for almost half of the authoritative responses, they were a minority of total resource referrals. In Delaware, in eight out of 10 authoritative responses, library staff referred to online resources to address a complicated health query (five referrals to MedlinePlus, three to CDC; one online referral was to Google and was deemed non-authoritative). Online referrals accounted for the vast majority of authoritative responses, and for over half of all responses. It may be that library staff were more willing or predisposed to learn about online resources because the Delaware initiative occurred later than the establishment of the CHIC and familiarity with computers was more commonplace. On the

other hand, the CHIC is still underway, though it is clear system or state-wide influence and training are no longer major priorities. How the initiatives were implemented may have played a role.

Secondly, there were practical differences in how the approaches were implemented. With the CHIC, there was only one medical librarian; she was located at the central library within the library system. Once the center was established and functioning, she reached out to other libraries and library systems in other regions of the state, but she didn't have any peer colleagues in the public library community to collaborate with or to share responsibility for the project. Her closest working relationship was with the hospital librarian, and this was due to her personal connection that had been well established before the CHIC was in place. During interviews with library directors in the system with the CHIC, those who knew about the CHIC and referred patrons there had generally been in their positions longer and were aware of the service because they remembered when the CHIC was created in 1999.

As presented in Chapter 5, two out of the 10 directors were not aware of the CHIC; one had been in her position nine months, and the other six years. Of the three directors with a MLS degree, all were aware of the CHIC. For those three with a MLS, one had been in her position for close to 40 years, one had been in her position for three years, and the third had been director for three and half years. The fact that they knew about the CHIC when another director in the system who had been in her position almost twice as long (six years) may be due to the fact that libraries with MLS level staff are generally larger, with more staff and more opportunities to attend system-wide meetings and to interact with other library directors. These opportunities are often where information sharing takes place; the presence of professional networks allows for the diffusion of ideas and information (DiMaggio, 1991).

Knowledge of the center did not relate to use of the center for libraries with MLS level staff, however. In the three libraries where there were MLS level staff, the directors reported that they did not utilize the resources of the CHIC or feel a need to refer patrons there for health information (two did not make referrals, and one said “maybe two times a year, if that”). The MLS library directors stated that they didn’t need the resources that the CHIC offered. Yet during each of the visits to those three libraries, I was given non-authoritative resources when I posed my health reference query. In fact, in the five libraries with MLS level staff of the 20 total I visited in the comparisons of systems in New York, I never received authoritative resources that addressed my health query. It is not known if the staff member who actually answered the health query was the individual with the MLS; but in those libraries, the director did possess a MLS degree. Thus, as the professional at the head of the organization, it is likely they did exert some influence on the culture and approach to service in their libraries. In all five of those cases, I was referred to the library’s print collection, and those materials were out of date and/or did not address the health query I posed.

The investigation of the center that was created by the reference librarian in a public library in a neighboring library system did not include any assessment of resource provision through a visit where a health query was posed. The research in Delaware only involved visits to public libraries and didn’t extend to interviews with public library directors. Also, as noted in Chapter 4, in the New York studies, I concentrated on rural public libraries, In Delaware, because I studied the entire state, the libraries involved in the study were not all rural, some were in suburban and urban areas. Assessments of reported practice vs. actual practice of health information resources as were made in New York State were not completed in Delaware. Also, it is not known if the public libraries in Delaware had reference policies or guidelines. In New

York State, none of the 35 total public library directors/managers who were interviewed reported having a reference policy in place, implying there are not standardized or institutionalized procedures for handling reference questions.

In contrast with the CHIC, when the consumer health initiative began in Delaware, it was a phased statewide effort. The three consumer health librarians were introduced and “embedded” one in each county at a time, over a three year period. They became members of the public library community gradually, and also had a small network of collaborative peers. The medical librarian from the Academy of Medicine who initiated the project, Arthur, attended meetings with the public library directors regularly and sought their input at the start of the project. Also, in Delaware there wasn’t the added level of bureaucracy between the public libraries and the State in the form of public library systems as exists in New York State. Thus, in Delaware, the State Division of Libraries may have had the opportunity for more direct influence on libraries with regard to adoption of new service provision.

There were also concomitant efforts that served to strengthen the effectiveness of the Delaware initiative, such as a statewide push for updating materials in health collections, with funds allocated for the effort. Thus, the embedded consumer health librarians were able to dedicate time and resources to ensure collections were updated with more timely materials in the area of health information. Training on providing accurate health information occurred in public libraries, by the embedded staff members who were located in public libraries, throughout the state on an ongoing basis. Therefore, institutional expectations and mindsets were influenced from *within* the organizations and *across* the entire library community and organizational fields in a somewhat organic fashion. The embedded librarians were colleagues who had regular contact with the public library staff whom they were training. This more extensive, infiltrating

approach may have contributed to increasing staff awareness and capabilities in a more lasting capacity and subsequently led to differences in the quality of health information provided during library visits in the different settings.

Before exploring the institutional and organizational contexts of each of the three approaches, I'll briefly return to some of the concepts that were introduced in Chapter 2. The two types of institutional theory, "old" and "new," emphasize different aspects of institutions or organizations for investigation of function and influence. The old institutional theorists concentrate on individual agency and power (Hirsch & Lounsbury, 1997). They view institutions as: built and run by purposive individuals, and existing within local communities (Stinchcombe, 1997). The new institutional theorists look at wider relationships and societal influences of the larger environment in which the institution operates (Scott & Meyer, 1994). Their term for this environment is the organizational field. Their emphasis, for the most part, has been centered on tendency toward similarity and stability of institutions, referred to as isomorphism (DiMaggio, 1991).

The organizational field has been described as: the organizations that comprise an area of institutional life (DiMaggio & Powell, 1991); or as a community of organizations that shares a common meaning system where members interact more often with one another than with actors outside of the field (Scott, 1994); and more recently as relational spaces where actors are provided with opportunities to interact with other organizational actors (Wooten, 2006). Three types of isomorphic institutional pressures the field can exert include: coercive, mimetic and normative (DiMaggio, 1991). Coercive isomorphism is primarily related to political influence and legitimacy; mimetic isomorphism stems from reactions to uncertainty; and normative isomorphism is connected to professionalization (DiMaggio & Powell 1991).

We can combine and extend these approaches to study institutions on three societal levels for a broader perspective, these levels include: as institutions, organizations, and individuals. On the individual level, social actors play an important role in organizational function, adaptability, and propensity for change. Individual actors operate with their own underlying logics, which contribute to the overall institutional logics or “the way a particular social world works” (Jackall, 1988, p. 112). We will turn now to how the institutional contexts and organizational dynamics differed in each of the three approaches.

6.3. Institutional context of the three approaches

“To understand individual and organizational behavior, it must be located in social and institutional context, and this institutional context both regularizes behavior and provides opportunity for agency and change.” (Thornton & Ocasio, 2008, p. 102)

6.3.1 The Consumer Health Information Center in the Central Library: New York

If we consider the institutional and organizational structures involved in each of the approaches, three different models emerge: a rural library system-based approach, a self-standing attempt within a public library, and a statewide initiative. As described in detail in Chapter 2, in New York State there are three types of public library systems: consolidated, federated, and cooperative. In cooperative systems, member libraries function independently, rather than as branches of a greater system. Each of these systems has a central (or co-central) library that serves the other libraries who are members of the same system. When they were established, central libraries were located in the larger public libraries within each system and were created to support member libraries and ensure access to reference resources through provision of services,

access to professional staff, and materials. The library that established the CHIC also serves as the central library for the library system of which it is a member.

Although the central library and other member libraries are within the library system, the system has no formal governing authority over individual member libraries, so though they may not exert coercive institutional pressure through formal mechanisms such as regulations, it is likely that they do exert informal coercive pressure on members. For example, library systems provide the online catalog for member libraries; thus, member libraries are bound to use the online catalog mechanism or vendor that the system provides if they want to share resources through the interlibrary loan network of library system members. So even if an individual member library prefers a different online catalog, as a system member they will have little choice in the matter once the system-wide online catalog is in place.

In New York, State funds for public libraries are administered by the Division of Library Development through the public library systems. Hence there may be some coercive pressure for public libraries to be members of library systems in order to be eligible for State funds that are disbursed through the formal mechanism of the library system. Additionally, in order for an individual public library to be eligible for federal funding, there is a State requirement that the library be a system member. Some foundations (e.g. Gates Foundation) have been known to use membership in a public library system as a mechanism for eligibility for funding as well. For the most part in cooperative systems, public libraries function autonomously with regard to local funding and individual library policy development and enforcement. The public library systems, though they may be directly governed by locally elected boards, are funded primarily by the State and their governance is heavily influenced by State regulations.

Isomorphic institutional pressures in the normative and mimetic forms are also likely to have an effect on members in library systems. Regular system-wide meetings provide a forum for the diffusion of ideas or models of provision and present the opportunity for libraries to learn from one another and/or to imitate practices. As norms are influenced by exemplars (Ocasio, 1999), for member libraries who are engaged in their system and its activities, there may be a tendency toward regional similarities in service provision and policies. For example, cooperative systems with a dynamic and active children's librarian on the system staff would likely be associated with providing more or better children's programs within the individual member libraries than occurs in those systems without a children's librarian. But because cooperative library systems have no formal governing or enforcement authority over their members, and each library functions autonomously with its own perceived mission, this influence will not be universal. So in the case of the CHIC, utilization by other members of the library system was strictly voluntary.

Some member libraries may not be active in system meetings or training opportunities and thus will generally not be affected by other member libraries' practices. This does not mean that they will be immune to the influence of being a member within a library system, however. In cooperative systems there is a shared online catalog and cooperative interlibrary loan procedures between the members. Consequently, access to information and collection development may be intertwined with other member libraries' resources. In some visits to libraries, I was referred to the same non-authoritative resource through the online catalog. So if only one library in the system has a book on a certain subject, it could mean that all 30+ members will use that as a resource, whether it is authoritative or not. Additionally, the first library in the system to catalog or classify an item may influence how the other members classify items, especially if library staff

in member libraries are copying the first library's record for an item rather than adapting item records for local use.

Over time, the prominent role of the central library as resource provider within library systems has diminished. With funding shortfalls and dramatic changes with regard to access to information, most central libraries no longer offer as many training opportunities or collect as many reference materials as they did historically. The direct influence of the central library on member libraries, as well as member libraries' reliance upon central libraries for service support appears to be on the wane within public library systems in New York State. For example, in the 1990's, many library systems purchased access to health information databases, and some still do. With the advent of free online mechanisms such as MedlinePlus and MayoClinic.com, the relative effect of the central libraries' resource assets has diminished.

In terms of the CHIC, when it was established in the late 1990's, the role of the library as the central library in the system enabled it to readily reach other member libraries within the same system. State funding, administered through the library systems, was provided for member travel reimbursement to attend all types of training sessions, thus regular training sessions were part of the public library landscape in New York. Consumer health information was offered as another one of those opportunities.

The medical librarian who was hired to administer the CHIC came from the medical library community; initially she wasn't ensconced in the public library organizational field. Once the CHIC was well established, she sought out funding to extend training to other public library systems and library staff throughout the state. While she oversaw those activities and the funding was available, those training sessions had high attendance and were a success. Once the external funding was exhausted and she left her position, this type of health information outreach was no

longer employed. The medical librarian's regional approach may have been shaped by her normative expectations. Due to her connections, training and background as a medical librarian, she saw health information as a universal service rather than as a local opportunity or program for one central library or as limited to the members of the library system the central library served.

The added level of bureaucracy between individual public libraries and the State Division of Library Development in the form of public library systems in New York State bears further examination. This added layer may play a role in service provision and diffusion and may have served as an impediment to the spread of the consumer health initiative. When public library systems and central libraries were created in the 1950's and 1960's in New York State, the regional access to and availability of professionals (MLS-level staff) at the library systems allowed smaller libraries to function and be staffed by non or paraprofessional staff. The expectation was that when non-MLS staff received reference queries that were beyond their scope, they could rely on the central library or the library system for assistance. Most central libraries (if not all) had dedicated reference staff and resources to enable regional reference support. This practice has largely dissolved and with regard to reference provision in particular, many smaller libraries report that they are "on their own" when it comes to providing reference services to their patrons.

As member libraries have had to become self-reliant, they may no longer consider or turn to the central library or library system as a ready resource for support. Once common training for member libraries on various aspects of library functions, such as collection and policy development, has largely fallen by the wayside. Thus, member libraries may not have the expertise or access to expert or professional resources that the library systems sought to infuse

throughout the state when they were created. While this abdication of responsibility to the library system and central library for provision of professional services may have made sense when the service model was established, over time, this approach may be inducing a negative effect on library service and function by consolidating professional staff at the system level. Additionally, the effect of consolidating professional staff at the system level is likely to have shaped service expectations of individual libraries, especially for staff. That is, historical reliance upon the library system for all types of support, including reference, removed the responsibility from individual libraries, creating a culture of dependency. As resources for library systems have diminished, the dependent libraries are no longer supported in the manner that was envisioned when library systems were created. Now, some libraries may not be able to supply their individual communities with services one might expect from a public library, such as high quality reference resources.

One of the stated goals of the CHIC was to serve as a model for other public libraries throughout the state, and even nationally. While the CHIC received recognition through statewide and national awards, it doesn't appear that this particular goal was borne out in the way that may have been expected. Other central libraries across the state did not follow the CHIC's lead and establish similar centers in their library systems. One factor that may have contributed to the lack of the model's replication was an exponential increase in access to health information via the Internet. Other libraries may not have seen the need for such a dedicated resource center when patrons could easily obtain health information online. Although there don't appear to be wide replications of the approach, one library staff member in a neighboring county did learn from the CHIC and adapted the approach to provide consumer health information access in her public library setting.

To better understand the process of how the CHIC was established, here, I re-introduce the list of potential actors within the public library's organizational field in New York State, as presented in Chapter 2. The actors and the organizational field member categories that were involved in the establishment of the CHIC are in bold and underlined.

- 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 libraries)**
 - NY State – State and Regional Library Resource Councils
 - NY State – Library systems
 - **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*)
 - **Foundation**(s) and individual donors (*belongs to and identifies with the organizational field: non-profit foundation*)
- Other service providers in community
 - 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
 - Other staff (all levels, professional and paraprofessional)
 - Volunteers
- Patrons/consumers
 - Local residents
 - Greater public

As we can see, the project included very few field members at its start. The Foundation is included as a service provider to the public library, and as such is an organizational field

member, but in actuality its primary identity is within the nonprofit organizational field. The only categories of field members that were involved were service providers and one library staff member. None of the organizations with governing authority were involved, nor were professional associations, other service providers in the community, community groups, or patrons. The lack of other organizational field members' involvement at the CHIC's inception combined with the diminishing influence of the central library may have played a role in the eventual decline of the CHIC's prominence and potency.

6.3.2 Inspired by the CHIC: Health Information Provision in one Public Library

A more modest attempt to provide a consumer health information resource was discovered in a public library in a neighboring county. The library where the service was initiated is in a suburban setting and is well-funded and supported by the community. The population of the legal service area is over 30,000; there are approximately 15 MLIS level staff members (full and part-time) employed by the library. The library is a member of a cooperative library system, but does not serve as the central library.

The idea for the initiative came from one of the reference librarians on staff. Essentially, the effort was another form of service provision, such as children's programs, and as such only required resources that were already on hand: space in the physical facility, support for marketing, and support for provision of programs. Because the initiative to provide consumer health information services took place within the public library, it also required initial support from the library director to provide the service and support from the library board and patrons to continue the service.

In this instance, the reference librarian (Georgia) took a corner of what she called "dead space" in the library and dedicated it to consumer health information resources. She and another

reference librarian had participated in the training offered by the medical librarian from the CHIC and applied what they had learned to their setting. They incorporated programming around health issues into the adult services offered by the library. They regularly advertise their services through a variety of venues, such as local media outlets and the library's website.

In this case of creating a local mechanism for consumer health information provision, there weren't any obvious external organizational field members, and no external resources were employed. Support from the library director and by extension, from the library board, did enable the project to go forward. Physical space in the facility has been dedicated to the project and the service has become an integral part of what the library offers to the community. The reference librarian who was responsible for creating the service was initially inspired by the outreach classes offered by the medical librarian from the CHIC. She learned about those classes through her affiliation in the public library organizational field, and the normative influence of diffusion of practices led to this type of service provision. Positive feedback from the community in the form of high rates of reference queries, high attendance of health-related programs, and utilization of consumer health resources has helped to ensure continued support from the library administration for the service.

As consumer health information provision has become integrated into the library's regular services, Georgia has also become more active in reaching out to other organizational field members, such as hospital staff, nursing home staff, public health staff, local health care providers, and support groups, to name a few. Although the initiative started within the public library field, there is now interaction with other organizational fields, such as public health and local health care entities, through Georgia's efforts and personal connections.

6.3.3 Delaware Statewide Initiative

In Delaware, the consumer health initiative was implemented on a statewide level. The medical librarian from the Academy of Medicine, Arthur, worked with the State Division of Libraries to create a model for providing consumer health information to “all the residents of the state.” Arthur had visited the CHIC during its early years, and thought it was a “useful model,” but he employed a differing model for the statewide effort. A consumer health librarian was based in a public library in each of the three total counties in the State. Those librarians were required to visit ALL (Arthur’s emphasis) libraries within the county during a month. The consumer health librarians negotiated the schedule for visits with the individual library directors. Also, at the request of the host library directors (who were instrumental in providing space for the positions), the consumer health librarians were required to work one Saturday during the month and one evening during the week at the reference desk of their host libraries. Arthur worked closely with members of the public library organizational field while he was creating the model to respond to their requests and concerns in order to maximize the potential for collaboration.

Besides outreach to other public libraries, the three consumer health librarians also became involved in the health care communities and organizational fields in the regions where they were placed through programs and outreach. The fact that consumer health librarians were embedded in the larger public libraries in each county and outreach was a large part of their function may have played a role in the effectiveness and diffusion of the initiative. According to one of the consumer health librarians, the first year of the project was largely spent working with the public library staff to familiarize them with the notion of the medical librarian’s role and health information. Once they became established in their respective settings, the consumer

health librarians became integrated members of the larger public library community and organizational field through regular and constant contact. They successfully infiltrated the public library organizations they served and supported health information provision in a variety of formats (such as traditional reference service, outreach and programs, collection development). Thus, it became another service the public library provided, similar to children's programs.

If we consider the list of potential actors within the public library's organizational field, with slight adjustments to reflect a different state, the organizational field member categories and actors that were involved in the statewide initiative are in bold and underlined.

- **Organizations with governing authority**
 - Federal government
 - **State government (Division of Libraries and Division of Health & Social Services)**
 - Local governments
 - Library Board
- Professional associations
 - National (American Library Association, Public Library Association)
 - Regional (State Library Association)
- **Service and materials providers (to individual libraries)**
 - **Delaware State** – through Division of Libraries
 - Foundation(s) and individual donors
- **Other service providers in community**
 - **Academy of Medicine**
 - Schools, clinics, community service providers
 - **Local libraries**
 - Internet cafes, bookstores, commercial venues (*though all of these are fee-based*)
- Community groups
 - Chamber of Commerce, Service organizations (e.g. Kiwanis, Rotary)
 - Historical societies, garden clubs (*may be physically based at library facility*)
- **Public Library staff**
 - **Director/Manager**
 - **Embedded Medical Librarians**
 - Other staff (all levels, professional and paraprofessional)
 - Volunteers
- Patrons/consumers

- Local residents
- Greater public

Admittedly, as a statewide initiative the Delaware effort required greater involvement across categories of actors within the organizational field than the CHIC did. In this case, there were actors from four categories involved in the effort. Organizations with governing authority were represented by two departments of the State. Service providers to libraries, other service providers in the community, and two levels of staff were also represented. Perhaps this higher level of involvement with multiple actors across categories helps to account for the seemingly continued influence of the initiative throughout the public library community.

6.3.4 CHIC and Delaware: organizational field members and isomorphic pressures

A comparison of the CHIC and the Delaware efforts, including the actors within the public library organizational field and possible isomorphic pressures that may have exerted influence on the processes are summarized in Table 6.1 below.

Categories of potential members within the public library organizational field are in the left column, and possible isomorphic pressures that they may have exerted are in the far-right column. In this table, category members are not all inclusive for ease of display, for example, not all service providers (i.e. Internet cafes, bookstores, etc.) that were listed in previous descriptions appear here. If there was no involvement of a category of members, that space is left blank. In both cases, there were three categories of field members that were not involved in establishing the consumer health initiatives: professional associations; community groups; and patrons/consumers. Those categories are included in order to demonstrate possible institutional pressures that they may exert overall, though not in this specific example. Actors in each of the categories within the field are designated in parentheses below the organization in which they

were active. Because the category of public library staff is a category of actors (staff), and not an organizational level category, there aren't further depictions of the actors involved as signified by parentheses.

Table 6.1 - Comparison of Field member Involvement in Creation of Initiatives and Isomorphic Pressures

Categories of potential organizational field members	The CHIC Effort – field members and (actors) involved in creation	Delaware Statewide Initiative – field members and (actors) involved in creation	Potential institutional pressures – Coercive, Mimetic, Normative – exerted by field members
Organizations with governing authority		State Government: Div. of Libraries – (Administrator) Div. of Health & Soc. Services – (Administrator)	Coercive Mimetic Normative
Professional Associations			Normative
Service Providers (to libraries)	Central Library – (Director) Foundation – (Board member)	Delaware Div. of Libraries – (Administrator)	Coercive Mimetic Normative
Other service providers		Academy of Medicine – (Medical Library Director) Local public libraries – (Library Directors)	Mimetic Normative
Community groups			Mimetic
Public Library Staff	Library Director	Library Directors Embedded medical librarians	Mimetic Normative
Patrons/Consumers			Coercive Mimetic

If we consider categories of field members and types of institutional pressure they may have exerted on public libraries to adopt the new service, there were many more in the Delaware initiative than in the case of the CHIC. In Delaware, there were two different departments in State government, both with the potential to exert all three types of pressures on libraries involved. With the CHIC, there weren't any organizations with governing authority involved in the effort. The central library was acting as a service provider to the member libraries, and as such had the potential to exert some influence or institutional pressure. For example, coercive pressure may have been in the form of providing monetary incentives to attend training; mimetic

pressure may have been by providing a model for service provision that members wanted to emulate. Normative pressure may have dictated that a medical librarian was necessary to undertake the effort. The Foundation exerted coercive pressure on the process by requiring written justification through mechanisms such as grant applications. As a service provider to libraries within Delaware, the Division of Libraries may have exerted the same types of pressures in a fashion similar to the central library. In the case of Delaware, other service providers were also involved in the effort. The Academy of Medicine and public libraries may have exerted mimetic and normative pressures upon libraries to take part in the initiative. With the CHIC, only the director of the central library was involved, but in Delaware, directors from all of the public libraries had potential to be part of the effort. Additionally, the embedded medical librarians likely exerted normative pressure on the public libraries to influence a change in service provision.

6.4 Three different approaches = Three different models

6.4.1 The Consumer Health Information Center

The Consumer Health Information Center (CHIC) was established primarily through the influence of an engaged community member who was on a local foundation board, Francine. She became acquainted with the library director, Laura, through their mutual involvement in a library advocacy program, Libraries for the Future (LFF). The advocacy program created the opportunity for interaction between organizational actors in a new relational space or organizational field.

Francine was concerned about the escalating availability of health information (mainly via the Internet) and community members' capabilities in evaluating quality of health information resources. As a way to address this concern, Francine came up with the idea of a

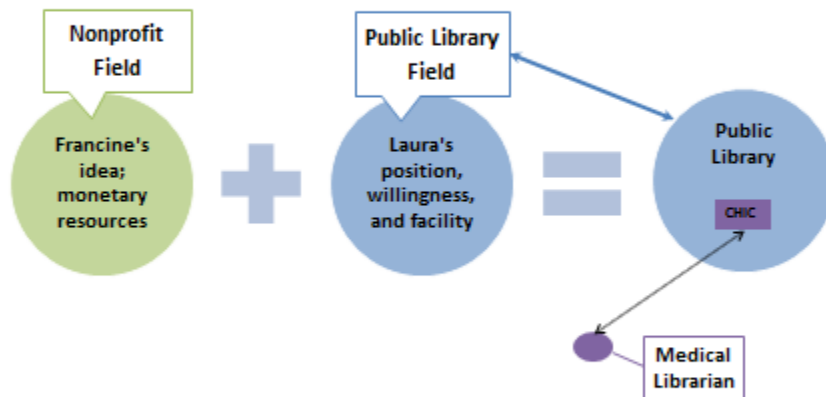
consumer health center located in the public library and presented the idea to Laura. Francine's underlying logics of the role of the public library as information provider (possibly influenced by a decade-long history of the library's annual reports highlighting health information as a service) led to her conclusion that the public library was a natural place for the public to seek out health information. Thus, the instigation of the idea came from outside the public library, and at its inception only involved one other organizational entity, the foundation where the community member served on the board.

If we think in terms of the influence of primary organizational field affiliation or membership, only two field members in the larger community where the public library was situated and operated were involved in the establishment of the CHIC: the nonprofit field and the public library field. Although the foundation acted as a service provider within the public library organizational field, its primary identity is actually within the larger nonprofit field. The organizational field of health care entities and the medical library became involved *after* the CHIC was established, but were not involved in its creation. Additionally, the initiative was created and supported through external funding from one source. The local foundation supplied the monetary resources so that the library could undertake and provide this new service.

Figure 6.1 is a simple depiction of the process and the two actors who were responsible for the establishment of the CHIC and their primary organizational field affiliations or memberships, which are identified by the rectangles linked above the circles. The two individuals met through mutual interests and library advocacy efforts. They leveraged different resources through their organizational affiliations to establish the CHIC within the public library. Francine was very active in the local nonprofit community and was a board member of a local foundation. Her primary contribution was the initial idea for the center. She encouraged the

library director, Laura, to apply for grant funds to create the center. The foundation funded the center (as a model program) during the first three years.

Figure 6.1 - Establishment of the CHIC



In her position as library director, Laura applied for grant funding from the foundation, provided for physical space in the library facility to establish the center, and sold the idea to the library board. Laura's view of the public library as an information resource provider and her broad approach to providing library services made the project possible. She didn't think the library could provide the consumer health information service without a dedicated medical librarian and external resources; however. This is consistent with other research that has found that new service concepts in public libraries are often linked to external funding (Rubleske, 2012). Laura's perception and underlying logics dictated that health information provision was beyond the scope of regular public library services and the capability of her staff members. This seems to be in contradiction with the annual reports, where professional staff were regularly lauded for their provision of health information service and medical database searching (see

Chapter 5), but may be due to the intensive nature of a full-blown information center as a specialty service, and staffing requirements. Thus, Laura oversaw the project and secured the funding that allowed for the hiring of a professional from outside the public library organizational field, the single medical librarian who was the staff member who implemented the project.

During the establishment of the center, there wasn't any overlap between the two organizational fields other than at the individual level, between Francine and Laura. Once the foundation provided the idea and the funding, they were no longer involved in the functioning or organizational structure of the CHIC. In its preliminary phase, the CHIC was primarily ensconced in the public library organizational field, as depicted in Figure 6.1.

With the hiring of the medical librarian, another field member (from the so-called medical library profession) was recruited and the CHIC was established. The CHIC was very successful when it was created, as indicated by high usage numbers and referral patterns. The creation and initial success of the CHIC seems to stem from the vision and relationship of three unique individual actors who were highly respected in their professional capacities and who had high regard for each other. The hired medical librarian easily interacted with the medical librarian at the hospital; in so doing, she solidified the relationship with that institution, but only on a personal level. If we consider the different organizational fields that they came from: the nonprofit foundation, public library and medical library, it appears that the interaction or overlap of the three was established or took place at the individual level, and not at the higher organizational or field levels. Each of the individuals, with her different institutional affiliation and logics, was able to operate very effectively within her own milieu to leverage her respective strength for a complementary relationship. Thus through their combined efforts, they were able

to effect change and establish an innovative way to provide health information to the community through the public library.

All of the primary actors knew how to work within their respective institutional arrangements and organizational environments or fields. The foundation member worked within the nonprofit foundation and public library fields. The library director was a leader in the public library field and acted as a conduit to the medical library field through her hiring of the medical librarian. The medical librarian was able to work within the medical and public library fields to effectively provide a new service. They also shared a common vision of the public library as information provider and as an incubator for the project.

Because the link between the medical library and public library organizational fields was largely established at the individual level rather than at the organizational or field level, and that link involved individuals who knew how to make institutional forces work in their favor, when the initial medical librarian (Marie) left, the relationship with the medical library field was not maintained and has been largely lost. Marie and the hospital librarian (Helen), whom she knew from their common affiliation in the medical library field – primarily through membership in the local chapter of the Medical Library Association (MLA) – failed to institutionalize their connections to the larger medical organizational field or to create a relational space where the medical and public library came together to form a new organizational field.

Marie's replacement, Rebecca, was from the public library field and identified strongly with that community of actors. Rebecca completed training in consumer health information once she was hired, but she hadn't been socialized into the medical library field. Therefore, she didn't have the social network or background knowledge to work as effectively within the existing institutional structures. Unlike Marie, she had not been a member of the MLA, and did not know

or associate with other medical librarians in the region. Indeed, she didn't seem to nurture or pursue the relationship with the health care community that had been established or to see the value in continuing those affiliations. Rebecca had different underlying logics about the position, and was not affected by the normative isomorphic pressures of belonging to the medical library profession or organizational field. Thus, the approach to services provided by the CHIC changed once Rebecca replaced Marie.

It is difficult to know if utilization of the CHIC would have remained at the high levels that were common when it was established if Rebecca had identified with and been ensconced in the medical library rather than the public library field. The hospital librarian, Helen, described the change in personnel as unfortunate: "She (Rebecca) didn't have a medical library background, so she didn't know what was possible, the thrust of the services changed, the relationship is not there anymore."

Today, the hospital librarian and Rebecca don't have much interaction at all. Helen said she reached out to Rebecca when she started (in 2004), but Rebecca didn't pursue a relationship with the hospital in the same way Marie did. Helen conjectured that Rebecca may not have seen the partnership with the hospital as critical as Marie did "because she (Rebecca) isn't a medical librarian, she doesn't know what she doesn't have access to, whereas Marie did." While the CHIC is still operational, it is no longer as visible in the greater community, and its utilization has declined considerably. The fact that the interaction between the public library and medical library organizational fields occurred primarily on an individual basis and was not institutionalized across multiple levels (e.g. on an organizational level) likely played a role in the decline. Additionally, influential actors can't just impose new forms or logics on an

organizational field; on some level, the new norms have to be accepted by other actors (Beckert, 1999).

6.4.2 Imitation of the Consumer Health Information Center in nearby setting

When a similar consumer health information service, inspired by the CHIC, was created in a neighboring library in another library system, unlike the CHIC, the change came from *within* the organization. The idea was initiated by an individual staff member, Georgia, whose primary organizational field affiliation was the public library where she was employed. Georgia was a reference librarian and was not involved in administrative duties at the library. After she had successfully completed training and received her certification from the MLA as a specialist in consumer health information, Georgia had the support and encouragement of the library director to provide consumer health information services to patrons.

Through her activities, Georgia became involved with the medical library community and with the greater health care community in her region, but she is not a member of the MLA and doesn't consider herself a "medical librarian" (a more thorough discussion of terminology occurs later in this chapter, section 6.5.1.2). Although it was the influence of Marie and the CHIC with the training opportunities they afforded that encouraged Georgia's pursuits, the public library was the only organizational field member involved during the establishment of the consumer health information service in this setting. The support of the public library director at Georgia's library cleared the way for the effort to take place, and the center was created with resources at hand without external funding or additional monetary resources or support.

In contrast with the CHIC and the Delaware initiative, Georgia's initiative was home-grown. It wasn't a process that involved input from or collaboration with other field members, nor did it utilize any external resources. Thus, the representation of this model differs

dramatically from the other two. Instead of being created through a process of interaction between members of different organizational fields, the center was created and incorporated into an individual public library's already existing structure. Figure 6.2 represents the endogenous nature of the initiative that Georgia spearheaded within the library where she worked.

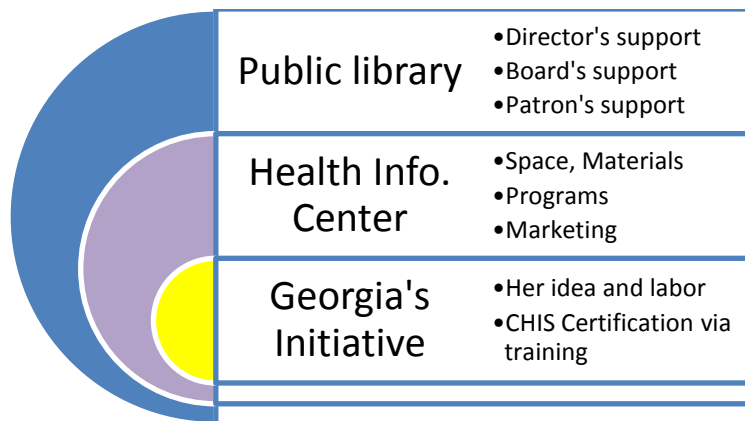


Figure 6.2 - Consumer health initiative in nearby library (inspired by CHIC)

Although Georgia's primary organizational affiliation was the public library field, she did have a personal interest in health information. Prior to becoming a librarian, she had been a freelance writer focusing on children's health issues. She reported that when she tried to specialize in medical librarianship while pursuing her MLIS degree, she was frustrated at the dearth of class offerings related to the specialty at the university she attended. Georgia became involved in providing consumer health information for the public library where she was employed after she attended the regional training classes offered through the CHIC that led to her Consumer Health Information Specialization (CHIS) certificate. The training was offered by the medical librarian who ran the CHIC, but Georgia learned about and attended the classes through her affiliation with the public library. Although the medical librarian operated in both

the medical library and public library organizational fields, in her capacity as the trainer from the CHIC, the medical librarian was primarily engaged as another actor from the public library field. Thus, Georgia's initial encounters with the medical librarian were through the public library organizational field. As with Laura (the public library director where the CHIC was established), Georgia's underlying logics were such that she also assumed specialized training or skills beyond the MLS degree and her education as a librarian were necessary to provide the service of consumer health information to patrons.

As her consumer health efforts have become well established and widely known throughout the greater community, Georgia has fostered relationships with a variety of actors affiliated with other organizational fields such as public health and health care (e.g. nutrition counselors, ambulance drivers, hospital staff, etc.). Many of these educational and outreach activities occur through sessions that are physically within the library; thereby enabling interaction and bringing other field members' influence into the public library setting, creating a forum and opportunities for actors from different organizational fields to engage. Georgia's efforts, from within the organization, have served to create a service that is utilized by the community, now incorporates other organizational fields, and is supported by the library administration.

6.4.3 Statewide Consumer Health Initiative

In Delaware, the statewide consumer health initiative was instigated by an individual (Arthur) whose primary organizational field affiliation was the medical library (Academy of Medicine). Like the foundation member Francine, who was instrumental in the establishment of the CHIC, Arthur viewed the public library as an obvious resource for health information provision. Both of these individuals had a primary professional field affiliation that was not the

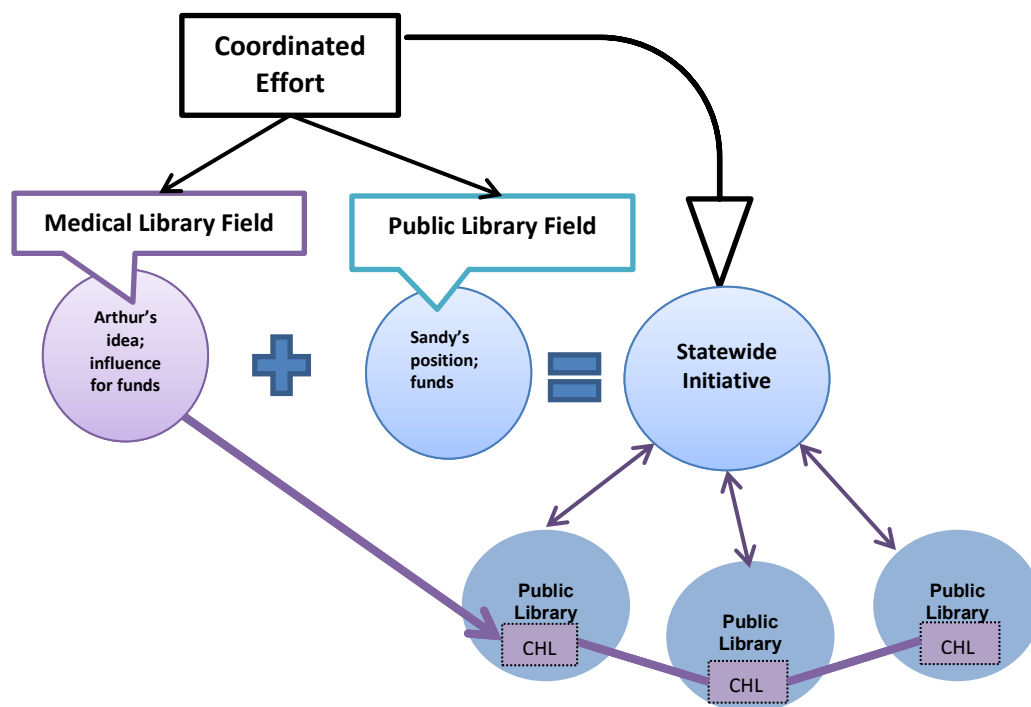
public library. Also, as in the case of the CHIC and the public library director Laura, and the public librarian Georgia, Arthur thought that public libraries would need specialized staff to provide consumer health information provision. That is, in all three approaches, the primary actors thought the regular public library staff members did not have the necessary capabilities or qualifications to provide consumer health information. Consumer health information was characterized as a specialty service, and not as an element or dimension of regular reference services in the public library setting. Even though public library staff routinely answer health reference queries, and technically the requirement for a public librarian and medical librarian is the same (MLS degree), this shared set of logics played a role in how the approaches were crafted and implemented.

Because Delaware is a small state, for the most part, members of the library profession (especially those at higher levels of administration) are acquainted with one another. Arthur contacted one of the administrators whom he knew at the State Library (Sandy) and successfully recruited her, and subsequently the organization, to participate in his vision to provide access to consumer health information for all state residents. Arthur was also well-connected at the State level with members of the medical and health organizational fields, and was able to leverage some funding for the initiative. The State Library offered their support in the form of complementary funding and by providing an entrée to the public library community with access to personnel (through inclusion of Arthur at regular library directors' meetings) and library facilities.

Figure 6.3 demonstrates the collaborative nature of the process of the statewide effort and identifies the organizational field membership of the individuals who were involved. Through their collaborative and coordinated efforts, over a three year period, they placed or “embedded”

medical librarians in each of the three total counties in the state. The consumer health (also referred to as medical) librarians, signified by CHL in Figure 6.3, were employed by the Academy of Medicine and reported directly to Arthur, (as indicated by arrow from Arthur to the public libraries) but were physically located in public libraries in different regions of the state.

Figure 6.3 - Delaware Statewide Consumer Health Initiative



Note 1 - CHL stands for Consumer Health Librarian (also referred to as (embedded) medical librarian)

The major difference between this approach and the establishment of the CHIC in the central library in one of the public library systems in New York was that the Delaware initiative reached out to and included the *entire* public library community, and embedded consumer health librarians were strategically located throughout the entire state. The medical librarians were tasked with conducting outreach and became integral members in each of the public library

communities in which they served. There was overlap and interchange between the public library and medical library organizational fields at the top administrative levels (between Arthur and Sandy), and this interaction was repeated on the local public library level with the embedded medical librarians and public library staff throughout the state. Additionally, funding for the statewide initiative came from a variety of sources, such as Delaware's tobacco settlement money through the Department of Health & Social Services, the Academy of Medicine, and the Division of Libraries, and not from specific, dedicated grants from one local foundation.

Though the overall purpose of the three models was health information provision, they differed in many aspects. These differences are summarized below in Table 6.2.

Table 6.2 – Overall Comparison of Three Approaches to Consumer Health Information Provision

	Consumer Health Information Center (CHIC)	Imitation in Nearby Library (Georgia's initiative)	Delaware Statewide Initiative
Mission	To develop an information center in a public library to assist patients and their families with finding high quality health care information	To provide consumer health information resources to patrons in community	To provide consumer health information to all residents in the State of Delaware
Audience	Regional public library patrons	Local public library patrons	All of the residents in the state
Resources for establishment	Primarily External	Internal	External & Internal
Organizational structure of implementing entity	Central Library within cooperative public library system	Individual public library	Public libraries in each county (3 total) with medical librarians (employed by Academy of Medicine)
Strategy	Dedicated Center within central library	Service provision and resources within a public library	Embedded medical librarians in regional public libraries
Organizations involved in conception and planning	Nonprofit foundation Central public library	Individual public library	Academy of Medicine State Division of Libraries Public libraries throughout state
Organizational Field members involved in establishment	Non-profit Foundation Public Library	Public Library	Medical Library State Division of Libraries Public Library
Organizational Field members involved in	Public Library Medical Library	Public Library	Medical Library Public Library

<i>initial operation</i>	Local Hospital		
Organizational Field members involved in sustainability	Public Library	Public Library	Public Library

The missions, audiences, and resources in the three efforts weren't the same. With the CHIC, the thrust of the externally funded project was to create a center that could be used as a regional resource and as a model for other libraries to emulate. Georgia used internal resources to supply health information resources to her immediate community; and the Delaware initiative, using a combination of funding resources, covered the entire state.

The organizational structure of the implementing entities and the strategies they employed differed greatly, as did the organizations involved in the planning and establishment of the efforts. With the CHIC, a dedicated center was created within a central library that served other public libraries who were system members. The organizational field members that were involved in the conception and planning were the central public library and a non-profit foundation. With Georgia's initiative, only the individual public library and the public library field were involved for all phases, and the strategy employed was to enfold the health information efforts into the existing library services. In Delaware, the organizations that were involved included the State Division of Libraries, the Academy of Medicine, and public libraries throughout Delaware. The cooperative effort provided for placing medical librarians within public libraries across the entire state. Additionally, though the embedded librarians were physically located in the public libraries, they were employed by and reported to the Academy of Medicine.

In the establishment and initial operation phases, the field members in the case of the CHIC were not the same. Individuals from the non-profit and public library fields established the CHIC, but the operation of the center included members from the medical library and the local

hospital fields. In Delaware, the medical and public library fields were involved in both the establishment and the initial operation, thus allowing for more interaction across fields as the initiative developed.

In all three of the approaches, the responsibility for sustainability lies within the public libraries and by extension the organizational fields in which they operate. The CHIC is still functioning, though not nearly at the level it was when it started; the consumer health librarians are no longer located in the public libraries in Delaware. Thus, it appears that in those two broad efforts a new organizational field, one that encompassed or included medical librarians/consumer health information professionals and the public library, did not emerge, *per se*. Discontinuation of dedicated external resources surely played a role, as well as the underlying logics of patrons, staff, and community members with regard to the public library as health information provider.

With the CHIC, a sophisticated tool was created within the central library; but it may not have meshed with the predispositions of the other system member library staff. Their underlying logics may have been such that it was difficult to integrate use of the CHIC into already established expectations and work routines. In Delaware, there were a variety of efforts undertaken, including collection assessment, training, and health database subscriptions - tools were provided *within* the public libraries. Thus, patron interaction was the same as it would have been without a dedicated center, though now staff had new routines and ways to address health queries in a more standardized fashion. The initiative may have complemented professional attitudes and underlying logics in that trained librarians had tools; the organizational structure of the libraries could incorporate these tools, whereas with the CHIC the member libraries had to consciously and with some effort seek out the tools beyond their library walls.

In Delaware, it appears that the initiative did have residual effects in terms of how public library staff approached health information provision. Because the initiative started by Georgia used resources that were available internally, sustainability isn't quite the same issue as for the larger efforts. Georgia's effort was approached and undertaken in the same way as other service provision or programming in the library, not as a specialty area. Thus, it has become readily incorporated into the services that the library offers to the community.

6.5 Public libraries as information providers

From their inception, the institutional perception and context of the public library in the United States has been as promoter of democracy and an informed, literate populace. On the organizational level, the public library has functioned as a repository and materials resource provider; until very recently, those materials were primarily books. For most of their history, the primary mission of public libraries and their staff has been to supply their patrons and communities with access to materials. So, on an individual level, many members of society still have a general perception and view of the public library's purpose as housing materials, the majority of which are books. While the purpose of patrons' use of materials may vary (e.g. recreation, education, etc.) and access to information may play a role in provision of those materials, the emphasis of the public library staff's role historically has been as an intermediary power between patrons and a variety of materials.

In many of the visits I made, staff were more likely to provide me with a physical item or artifact rather than with access to the information (in any form) that would help answer the query I posed. It may be that my physical presence in the facility contributed to this tendency, but given the long history of public library as book repository, the heavy reliance on the print collection by public library staff to answer reference queries may not be all that surprising. This

reliance, however, implies there should be standard and routine procedures for assuring that the items on the library shelves, particularly when it comes to the non-fiction collection in general, and health specifically, is kept up-to-date. Additionally, if public library staff continue to rely on the print collection for answering health queries, then it follows that library staff members who are in charge of selection and acquisition of health materials should have some capability in assessing the reliability and credibility of resources. This of course points to the larger issue of the effectiveness of popular collection development tools used by public library staff, such as the *New York Times' Bestseller* lists and even *Library Journal* and *Publisher's Weekly*. While this issue is certainly worthy of further investigation, it requires a more thorough analysis of public library collection development tools, which lies beyond the scope of this discussion.

In terms of how an individual library views its mission or function, the use of the space in the physical facility may also be an indicator or signal of service provision priorities. In many smaller libraries especially, space is at a premium and a dedicated reference desk or area is no longer visible, or perhaps there never was one. In these libraries, if patrons do have reference queries, their option is to ask at the circulation desk, which affords very little privacy. This may be an impediment to information seeking, especially for patrons with health questions who are located in smaller communities where residents are likely to know each other. Additionally, the absence of a dedicated reference service desk may send organizational and institutional signals to library staff and the community that the library is not focused on reference provision as a priority, thus informing their underlying logics and expectations of the services their public library provides.

In most of the libraries I visited where reference was an integral part of service provision, as indicated by dedicated physical space and a staffed reference desk, I received authoritative

resources for my health query. Resources may play a role here; generally, libraries that are large enough to dedicate space to reference provision may also be more likely to employ MLS level staff and have more resources for materials. In six of the seven libraries in Delaware with dedicated reference desks and reference staff I received authoritative information. The exceptions were once in New York, in one of the larger libraries with MLS reference staff, where I was directed (by the MLS reference librarian, as indicated by her nametag) to the print collection and the book was out-of-date. The other time was in Delaware where the reference desk was empty, so I inquired at the circulation desk and was directed to the stacks to a non-authoritative resource.

One of the former embedded consumer health librarians from Delaware observed that she found a noticeable difference in service levels between libraries where a reference desk was staffed by a MLS librarian versus one that was staffed with non-MLS staff. She reported that the possession of a MLS degree by reference staff had a positive effect on authoritative health information provision. It is likely that normative pressures play a role here. Individuals with the MLS degree are not only likely to have more access to professional networks and formal training with expectations of keeping up-to-date, but they're also more likely to be employed in larger libraries that have more resources to support staff development and involvement in the larger professional library environment (e.g. membership in professional organizations paid for by the library) that then reinforces those expectations. Additionally, having a reference desk may influence the libraries' (and by extension librarians') and patrons' perceptions and underlying logics with regard to library function and mission and may serve to institutionalize organizational approaches to reference provision.

It seems the larger issue here is the institutional role of the public library as information provider, in general, and as a resource for health information specifically. Historically, health information provision hasn't been an integral part of the public library's institutional mission, while promoting democracy through a literate populace has been. It's an easy and logical leap, culturally and socially, from promoting literacy to children's storytime and summer reading programs. Thus, these efforts in service provision have become readily integrated into the organizational function and structure of public libraries and subsequently have become institutionalized throughout public libraries in the United States, unlike health information provision. Until recently, there were some public libraries that avoided providing reference support in the area of health altogether, though they did provide print materials for their patrons. As access to health information has exploded, public libraries as information providers and library staff as overseers of information navigation will likely have to respond to an ever-changing landscape and deal with changing expectations of their patrons and communities.

If we return to consider the examples of the CHIC and the statewide initiative in Delaware, it seems that the Delaware model of embedding the medical librarians in the public library setting throughout the state had a positive effect on reference provision regionally. The overlap, hybridization, and interaction between the public and medical library organizational fields at the state and local levels appear to have had a lasting influence on how public library staffs approached health information provision and their subsequent health information resource utilization.

6.5.1 Individuals and their underlying logics

As introduced in Chapter 2, there are many factors that influence the missions of public libraries and how they function. On a number of levels, different actors can exert influence on

the institution. On the organizational level, for example, public library personnel are socialized in culturally sanctioned ways of thinking about and performing their job duties. This can be further influenced through normative pressures, such as professionalization through the MLS degree and/or membership in professional associations. These sanctioned ways of thinking and acting, sustained over time, help to institutionalize the core logics of public libraries, their organizational forms within larger social structures, and the "on the ground" practices by staff. Thus, the institution of the public library operates with a central logic that can constrain individuals and action, but it can also provide opportunities for change, such as took place with the new approaches to health information provision.

If we return to the two individuals who spearheaded the broad efforts to provide consumer health information to their communities, through the CHIC in New York and the statewide initiative in Delaware, neither of them was from the public library community. Francine (who initially proposed the CHIC model to the public library director Laura) came from the non-profit foundation field; Arthur was a medical librarian. While both of them were public library champions, they came from outside the public library field. They both assumed that: a. public libraries were a logical place for making health information available to the public, and b. community members would utilize public libraries to fulfill their health information needs. Layered onto that assumption, however, was an additional assumption shared by the public library director, Laura, and the medical librarian, Arthur and that was: "regular" public library staff weren't equipped to handle the service. In fact, in all three of the consumer health approaches, the librarians who were in charge of inaugurating the initiatives (two out of three who were from the public library field) expressed a need for expertise beyond the level of the public library staff, even if the public library staff had the MLS degree. Although Laura

emphasized the role of professional staff (as reported in chapter 5) and applauded staff for their efforts in health information provision, she assumed a larger consumer health initiative was beyond their scope of expertise and wouldn't readily fit into the existing organizational structure for reference provision.

Thus, in both cases of the broad consumer health initiatives, the CHIC and Delaware, external field members from the medical library field were sought out and hired to implement the service efforts. Additionally, supplementary resources in the form of external funds were seen as a necessary requirement for the projects to be implemented. Consumer health information provision was approached as a service beyond the regular scope of the public library in the broad initiatives. This assumption was also borne out in the case where Georgia imitated some aspects of the service provision of the CHIC. Her effort was initiated only after she had completed training beyond her MLS degree and was certified by the Medical Library Association with a "Consumer Health Information Specialization."

This observation leads to the institutional issue of the underlying logics or perceptions attached to the position or role of the "librarian," not only by their respective professional communities (e.g. public and medical), but by the public they serve. The embedded consumer health librarian from Delaware expressed frustration at the fact that "the public don't know what librarians do." Unlike some other professions where the terminal degree is linked to a specific job and title, this is not the case with the term or label of librarian. Indeed, to the general public as well as many public library staff members, anyone who works in a library is considered a librarian; whereas, if we consider the example of schools for instance, not everyone who works there is considered to be a "teacher" or referred to by that label.

While there are definite stereotypes of a “typical” librarian, these impressions generally do not extend to the knowledge that there is an advanced degree that confers the moniker librarian. If we use another example of professional label, that of lawyer, even though there may be subspecialties in the profession (e.g. criminal, constitutional, etc.), in order to be referred to as “lawyer,” the individual must have earned a J.D. Because this is not the case in the library setting, there’s a collective logic that plays a role not only in how librarians are perceived, but perhaps also in how they view themselves and approach their jobs and identify themselves professionally. Although the generic category has evolved to encompass a broad range of practitioners, rather than creating a unified professional community of all types of librarians, it has led to distinct communities of practice, such as law, special, medical, public, etc.

The embedded consumer health librarian from Delaware recalled her initial challenge as gaining an entrée to the public library world, and stated that her first year was spent on familiarizing public library staff with the role a medical librarian could play in the public library setting. Even though Arthur had laid the groundwork by including public library directors in the planning of the initiative, because the embedded librarian came from the medical library field and also was a “contract librarian” she was an “outsider somewhat.” So while Arthur may have been successful in initially winning over the directors, the larger public library community was operating with its own set of expectations and logics, and took a bit longer to adapt to the model of the embedded librarian. For librarians who are socialized into the public library milieu, provision of health information may not be viewed in the same manner as it is for those socialized into the medical library profession.

6.5.1.1 Professionalization and socialization of medical and public librarians

Studies of professionalization have generally not focused on how professionalizing occupations influence relations between organizations (DiMaggio, 1991). If we first consider practicing medical librarians, providing authoritative health information is their primary professional responsibility. And while they may be employed in a variety of settings, such as hospital, academic or private industry, health information provision is their *raison d'être* or primary purpose within their organizational settings. Additionally, because the medical world is driven by research, for medical librarians research is likely to be an important component of the milieu in which they operate. Generally speaking, their primary professional organizational affiliation will be the Medical Library Association, with local chapters, a common annual conference, common literature, such as the *Journal of the Medical Library Association* and *MLA News*, and common communication channels, such as the MED-LIB listserv. All of these venues take the value of authoritative health information for granted as a starting point and guiding principle and thereby contribute to a cohesive professional mission, identity and community.

In the case of the CHIC, the medical librarian (Marie) who was hired to run the center came from the academic medical community. Thus, her underlying logics were already well established when she arrived at the CHIC. They guided her approach to service provision, even in the public library setting. Because medical librarians are routinely asked to answer reference queries that are directly related to patient health (at times in life and death situations), high quality and rapid information provision can be central to their identities of professional function. Marie engaged members of the health care community in the same way she had in her previous position, primarily by demonstrating the added value her services could provide. For example, in order to aid in the hospital's Joint Commission on Accreditation for Healthcare Organizations

(JCAHO) accreditation process, she created patient education materials. She and the hospital librarian had a shared professional mission – providing authoritative health information. With her inclination toward research as part of her identity as a medical librarian, Marie also kept statistics to inform how she provided services to the community. She investigated what conditions were prevalent in the local clinics and routinely interviewed local practitioners to learn about specific conditions for which patients requested information.

In my interviews with public library directors, when I asked about types of reference queries they received (by subject), none of them collected that data. They all kept track of total reference questions, as this is required for the New York State annual report. When asked what percentage of reference queries were related to health, most if not all, of the directors had to make estimates rather than referring to actual numbers they had collected. Marie’s approach, which involved collecting data to inform and drive service provision, is likely to have been influenced by her socialization into the medical library profession and just one example of how professional socialization might affect how one approaches job duties.

When Marie left, her replacement (Rebecca) was a recent, generally trained MLS graduate who came to the position at the CHIC from a brief background as director of a rural one-person (staff member) public library. She had been socialized into the profession through the public library avenue, and this had an impact on her normative values and skill set. She approached her job duties differently than Marie, although her position was identified as “medical librarian.” Even though Marie had established a cooperative, even symbiotic, relationship with hospital staff, Rebecca did not nurture or even continue that tie. It seems that she did not value the connection as Marie had, as evidenced by her comment that the public library was “in competition” with the hospital. Rebecca joined MLA as an individual member

when she first started and there was normative pressure to do so, in fact; foundation funding paid for her membership. She is no longer a member of MLA, however. She identifies with and reports her primary organizational affiliation as the State Library Association because it covers a broad range of library issues. She is not a member of any national professional organizations, such as the American Library Association (ALA) or the Public Library Association (PLA).

DiMaggio (1991) characterizes the organization of professional associations as one of the five key dimensions of professionalization. In the public library arena, there are more options for membership than in the medical library arena, including the ALA or PLA and numerous state, regional, and specialty divisions (e.g. Association of Rural & Small Libraries). This variety of choices may lead to a less cohesive, defined path of information sharing and diffusion of practices among public library personnel. Also, libraries with more resources may pay for institutional or individual memberships for staff, creating an unequal distribution of opportunities among library staff and an under-representation of resource-challenged libraries in professional organizations. One of the three directors with a MLS in the system served by the CHIC reported that she's not a member of any professional organizations. She explained "the library budget doesn't cover membership or conference travel." and added she doesn't "have time to attend conferences." As the only professional staff member, she is "barely able to take vacations." It's of interest that she saw the primary value of affiliation in a professional organization (such as ALA) as tied to conference participation. Most of the other directors (of all educational levels) linked the value of professional organizational membership to access to the larger public library field, through a number of venues (e.g. literature, communications), and didn't restrict their tally of perceived benefits to conference activities.

Although the numbers were small, all three of the directors with a MLS in the system served by the CHIC identified *programs* as the most important function of the public library within their communities. This finding points to a radically different mindset and approach to service than is generally found in the medical library community. While the embedded librarians in Delaware did use programs in their outreach activities, it was not the primary thrust of the initiative. Programs were used to complement the primary goal, which was authoritative information provision. The effect of putting medical librarians in the public libraries in Delaware enabled each group to learn about and have daily, regular exposure to the others' underlying logics and subsequent approach to job duties. So it could be that the public library staff influenced the medical librarians' approach to service provision, and/or the medical librarians adapted and added programming as part of their health information provision repertoire. In her library, Georgia regularly uses programs as a complementary venue for providing health information. It could be that her logics of the role of the public library have influenced her approach to health information provision in her setting.

There appears to be a perceived hierarchy with regard to types of positions in the professional library community. Marie, the medical librarian from the CHIC described what she recognized as the unfortunate ranking of libraries with regard to type: "academic libraries are at the top, then special libraries, community college, and public libraries are way at the bottom." This observation is borne out to some extent in practice. Students in one university's library science program report that the program director counsels students that if they "want to work with the insane, then they should choose public libraries as a career option" (personal communication, 2/26/11).

Yet, in both the case of the CHIC and the Delaware initiative, the medical librarians were champions of the public library and public librarians. Arthur reported that it wasn't difficult to recruit medical librarians to work in the public libraries, "They most firmly believed in consumer health." While medical librarians may have a well-defined notion of public librarians and the role they serve, public librarians may not be as aware of the role medical librarians play. This was evinced by a comment during my interview with one MLS director from a large suburban library with over 12 (full and part-time) MLS staff members. When I asked about staff memberships in professional organizations and listed MLA as one of the possibilities, she replied, "I don't even know what that is."

In the world of library practitioners there is a definite distinction between the different communities of librarians. As discussed earlier, in all three of the consumer health efforts, the expertise of a "medical librarian" was seen as a necessary, even critical, component. In the CHIC an individual medical librarian was hired, and in Delaware librarians from outside the public library organizational field were also hired to provide consumer health information within public libraries. In the initial phase of the CHIC, the medical librarian interacted with members of the medical library organizational field, but only on an individual basis. In Delaware, the initiative allowed for daily interaction between individual field members from the medical and public library organizational fields across libraries throughout the state. This is likely to have had a more lasting effect on public library staffs' approaches to health information provision and helped to institutionalize procedures for addressing health reference queries.

According to the medical librarian, Marie, the hierarchy she described should be reversed. When she taught public library staff, she told them they should be at the top when it comes to fielding health questions:

“They have patrons come in with much more vague questions, ‘there’s something wrong with my eye’ where physicians give the precise medical condition – ‘toxic optic neuropathy,’ it’s much easier to find.”

No matter what term we use as a descriptor for the position, medical, consumer health or health sciences librarians have as their primary job focus making authoritative health information available to their varied communities of users. For public librarians, health information is likely a minor part of the job and for many it has been an element of their job that they may not have actively embraced. An overwhelming increase in access to health information for consumers, largely through the Internet, is likely to change this.

6.5.1.2 What’s in a name?

How one defines or describes his/her position can have a strong influence on professional identity. Throughout my research, I found different terminology was used to describe the various positions for librarians working with health information. At the Consumer Health Information Center (CHIC), the initial position used the job description “medical librarian” and used the term: “Head of health information services.” When the original medical librarian, Marie, left her position and was replaced by Rebecca, Rebecca was still described as a “medical librarian” in her first year, but the following year she was described as “consumer health librarian.” In subsequent years, the terms medical and consumer health librarian were used interchangeably; though from 2008-2010 there was a shift back to the term medical librarian. When speaking about Rebecca, Georgia (who had imitated the CHIC nearby) made a differentiation between the two: “I think she’s actually a medical librarian, not just consumer health.” Whereas the hospital librarian, Helen, had a different take: “She’s really a consumer health librarian, not a medical librarian; I think to call her a medical librarian is somewhat misleading.” It should be noted that Rebecca refers to herself as a “research librarian.” In Delaware, “medical librarians” were hired to become “embedded consumer health librarians” once they were stationed in public libraries.

Just what is the difference between a medical librarian and a consumer health librarian, and are they different from public librarians?

The Medical Library Association (MLA) website answers the question “What is a health sciences librarian?” (the term used in their literature rather than medical librarian) with:

“Health sciences librarians are health information professionals who have specialized knowledge in quality health information resources...are reference and consumer health librarians, web managers, medical informatics specialists, and chief information officers, as well as catalogers and instructors....[they] work anywhere health information is needed, including hospitals, academic medical centers, and clinics; colleges, universities, and professional schools; consumer health libraries; research centers and foundations; industry, including biotechnology, insurance, medical equipment, pharmaceutical, and publishing; and federal, state, and local government agencies.” (mlanet.org, 2013)

The requirement for education states: *“To enter the profession, at least a master’s degree in library or information sciences is required. A background in sciences, health sciences, or allied health can be helpful, but is not necessary.”* (underline mine for emphasis; Medical Library Association, 2013) Thus, anyone with a MLS degree could conceivably qualify to be a health sciences librarian, the synonym the MLA uses for medical librarian, or a consumer health librarian, a specific type of health sciences librarian.

Using the search term “medical librarian,” on the U.S. Department of Labor’s online occupational outlook handbook refers to the broader category in the online tool O*Net:

“Librarian.” According to O*Net:

“Librarians administer libraries and perform related library services. Work in a variety of settings, including public libraries, educational institutions, museums, corporations, government agencies, law firms, non-profit organizations, and healthcare providers.”

Their sample of reported job titles includes:

“Librarian, Reference Librarian, Public Services Librarian, Library Media Specialist, Library Director, Technical Services Librarian, Catalog Librarian, Children’s Librarian, Serials Librarian, Medical Librarian.” The education requirement states: *“Most of these occupations require graduate school. For example, they may require a master’s degree, and some require a Ph.D., M.D., or J.D. (law degree).”*

Hence, it appears there is no difference between the requirements for a children's librarian or a medical librarian. In the world of library practitioners, however, there is a distinct differentiation between the subspecialties, which may contribute to little overlap and isolation between the communities. This isolation may make lasting hybridization between the public and medical library fields challenging, as observed in the case of the sustainability of the CHIC. Although it appears in the case of the Delaware initiative, this challenge was overcome by embedding medical librarians in public libraries regionally with opportunities for regular, daily interaction between the subspecialties.

6.5.1.3 Moving On

On another note, the embedded medical librarian from Delaware (Jane) whom I interviewed has left the library field to pursue a doctorate in public health. The consumer health librarian (Georgia) from the library near the CHIC is also considering leaving her current position to pursue a Master's in Public Health (MPH) degree. While both women spoke enthusiastically about their experiences in the public library setting, they also expressed some frustration. For example, Georgia lamented that there wasn't a network for public librarians with her interests: "I wish that a consumer health library community existed; it's a bit like working in a vacuum." Jane talked about the model of the public library as consumer health information resource. She stressed the need for other community partners in order to be successful, "The efficient and effective model has to include public libraries and community-based organizations, but it's not sustainable in public libraries alone, absolutely not."

Jane went on to say that some public libraries have a myopic view, they may talk about outreach, but it doesn't happen.

“The medical library model doesn’t work with the public library alone, if it’s only in the library world, it’s not going to stick around... There are a lot of people who don’t use libraries for health information.”

She explained that one of the valuable outcomes of the Delaware initiative was that community organizations were reminded of the value of public libraries: “People don’t necessarily know what librarians do, outreach is critical, and it enhances political capital.” Jane’s current research interest is health literacy. She credits her experience working on outreach and in health education as an embedded librarian through the consumer health initiative as the driving force behind her return to school. “Helping patients so that they can make better health care decisions, I’ve never experienced that kind of satisfaction professionally.”

Although Georgia came from the public library field and Jane came from the medical library field, they both came to their positions with underlying logics that predisposed them to view the public library as information resource provider. They also shared an interest in health information. These combined to enable them to participate in their respective consumer health activities. As with many of the other actors involved in the initiatives, they were also effective in reaching out to members in other organizational fields. It is unfortunate that they are making the choice to leave the public library field. On the other hand, when Marie left her position as medical librarian and head of the CHIC, she took an administrative position at a public library system and is no longer active in the medical library field. This distinction between the two subspecialties within the library profession (medical and public), borne out in practice in all three of the approaches, has ramifications for service provision when it comes to public libraries and consumer health information.

6.6 Summary

There are many interrelated aspects of this research that have been presented throughout this document. First, there was the empirical data from multiple attempts to assess practice: in rural libraries; through a comparison of libraries in two library systems; and in libraries served by a statewide initiative. These led to a case study of the CHIC, an examination of similar resource provision on a smaller scale and investigation of the Delaware statewide initiative. Because this series of research inquiries was not constructed in any way to be an evaluation of the approaches, whether there is a correlation between the different methods of health information provision and the differences in service provision in the libraries served by the differing approaches can't be conclusively determined.

The three different approaches used different models for consumer health information provision with different effects. The CHIC approach was more hierarchical, perhaps in part due to the library system structure in which it was embedded, and didn't involve any organizations with governance responsibility capable of exerting institutional pressure. The overlap between the public library and health care organizational fields occurred on the individual level and wasn't institutionalized. After the initial medical librarian Marie left, the CHIC became more insular and service provision shifted. While there may be many factors involved in the decline in usage (e.g. increased Internet access to health information for individuals over time; the resource of dedicated funding expired; the role of central library has changed; they no longer advertise) of the center, the relationships and interactions between the individual actors and institutional pressures are also likely to have had an effect.

Does it matter that there's no longer a strong link between the CHIC and the medical community? If we consider the impact of the CHIC on health information service provision by

member libraries it served, it appears there was no lasting positive effect. It's difficult to know if this would be different if the interdependent relationship between the hospital and the CHIC continued and the overlap between the public and medical library organizational fields had been institutionalized.

In the library where the reference librarian imitated the CHIC approach, the effort was internal, dedicated to one community, and did not utilize external resources or funding. Consumer health information provision is now an integral part of the library's services and accounts for a large number of library programs and reference queries. It is unclear if the effort has become institutionalized to the extent that it will be sustained if its champion leaves. However, because it is integrated with other library services, has successfully engaged other organizational field members, been functioning for over six years with increasing recognition, and doesn't rely on external funding, its future seems bright.

The Delaware statewide initiative was more embedded and expansive than either of the other approaches. By embedding medical (or consumer health) librarians in the public libraries, there was regular, ongoing interaction between the medical and public library organizational fields on all levels throughout the state. It may be that public library staffs' underlying logics or tool kits for behavior adapted to include health information provision in their service model due to the influence of the medical librarians. The regular interaction between staff in their "home" organization may have had an effect and thus account for differences found in service provision across the geographic settings. For example, training and collection development were some of the embedded librarians' duties; it could be that this has had a residual positive effect on the use of health information resources.

Public libraries have been commended for their “institutional resilience” in terms of adapting to changing technologies (Schwartzman, 2012). With the proliferation of access to all kinds of information, including health, it is likely that public library staff will be called upon to employ that resilience as they consider future service provision. A better understanding of the organizational and institutional forces that affect decision-making and functioning of public libraries will help to ensure that they are responsive to societal forces and their communities’ ever-changing needs for information.

The next chapter (7) concludes with a summary of the overall findings, discussion of the contributions and limitations of this research, practical implications and recommendations based on the findings, and future research opportunities.

Chapter 7 Conclusion

The motivation behind this research was a better understanding of how public libraries engage with and fulfill the consumer health needs of their communities. As straightforward as the topic may seem, to investigate this phenomenon it was necessary to employ a broad approach and examine the public library on three levels: institutional, organizational and individual. By using what we've learned from old and new institutional theory and the institutional logics approach, I have attempted to uncover some of the factors that affect service provision in public libraries, and in particular, health information provision.

This research consisted of two strands. The first strand was an assessment of public library staffs' practices in terms of resource use for health reference queries. Three separate studies were conducted, with different combinations of interviews and visits as methods of data collection. For those efforts, the overall findings of assessment of practice include:

In Upstate New York:

- Patrons are using public libraries for health information.
- There don't appear to be any standardized practices for health information reference provision in the library systems where the studies took place.
- Having MLS level staff did not have a positive impact on quality of health information provided in the library systems where the studies took place.
- A formal organizational level response through establishment of a CHIC in one library system didn't significantly improve the quality of health information provided in member libraries when compared with results of library visits in a similar library system without a formalized health information resource.
- The CHIC did have some regional effect, as the approach was imitated in a nearby library.

- MLS Level directors served by the CHIC identified programs as the most important function of the public library in their communities.

In Delaware:

- In Delaware having a MLS degree had a positive impact on the provision of authoritative health information.
- It appears that the statewide initiative may have had a positive effect on the provision of authoritative health information during reference encounters in public libraries.

In Both Settings:

- Patrons aren't always receiving authoritative health information during public library visits.
- In all the cases in both states where non-authoritative information was provided in libraries with MLS level staff, it was a print resource.

The second strand of research included an exploration of three differing approaches to health information provision across three different settings. Data collection in these instances included document analysis, interviews, and some unobtrusive observation. Some of the overall findings of those efforts include:

- The institutional and organizational contexts of the three approaches differed dramatically and had an effect on how service provision was enacted.
- In all three approaches, project innovators assumed consumer health information provision was a specialty service, and as such required expertise outside the public library organizational field to implement.
- The regional CHIC effort and the Delaware statewide initiative were conceived and initiated by individuals from outside the public library organizational field and created with external resources.
- The Delaware approach originated at top administrative levels, and was a partnership between private and governmental agencies that placed embedded medical librarians in public libraries throughout the state. Thus, there was regular interaction between the

medical and public library organizational fields on a number of levels (individual, organizational, and institutional).

- There was a distinct perception of professional segmentation between the public and medical library organizational fields. In all cases, the individuals responsible for the success of the efforts identified with the medical library culture and socialization into that profession.

7.1 Contributions

The findings from this series of research efforts can provide guidance in planning for and implementing service provision in public libraries, particularly consumer health information. First, I will attend to the practical application of my research: implications for public library practice.

7.2.1 Implications for public library practice

7.2.1.1 *What's on the shelf matters!*

If we return to the results of the library visits, we're reminded that in both states in libraries with MLS level staff, when I received non-authoritative resources they were *always* from the library's print collection. In other words, in all of the cases in both states where visits to libraries with MLS level staff produced non-authoritative resources, those resources came from materials that were on the libraries' shelves (eight of 35 total interactions).

This finding leads to the consideration of larger public library policy issues, including reference provision and collection development. We expect both of these areas to be an integral component of the MLS director's arsenal of skills. Yet it appears that this wasn't the case. At least it appears there wasn't any standardization across the libraries with MLS level staff that I visited in terms of approach to reference service or having up-to-date materials on library shelves. There weren't any obvious routine reference procedures or institutionalized practices

that staff followed (e.g. referral to reference staff; use of system-level resource support; or default to a preferred consumer health information resource); instilling these may help to improve reference encounters.

Print resources were woefully out of date, especially in the New York visits, implying a lack of resources for collection oversight, which includes regular assessment and de-selection or “weeding” of library materials. In Delaware there was a statewide effort to update health collections. This activity may have guarded against referral to more outdated print resources in that setting. Also, assistance with collection development was one of the job duties of the embedded medical librarians. In the medical library field, a common rule of practice when evaluating health information resources is the five year mark (E. Detlefsen, personal communication, 4/2/10). If the item is older than five years, it should be evaluated and serious consideration should be given before keeping the item in the collection. Directives initiated at the library system or state level with guidelines for collection evaluation and maintenance may be a logical starting point for improving health information resources.

The majority of library staff in the Delaware libraries with MLS level staff (seven of 10) used online resources when presented with a complicated health query, and that resource was authoritative in *all* seven of those cases. In fact, all of the instances where I received authoritative health information in the libraries with MLS level staff in Delaware, it was from an online resource. While I am not advocating that we give up on print materials for health information, I am advocating that we teach public library staff to guide patrons to the best resources possible. Health and medical information change rapidly. Therefore, it may make sense to rely on online resources in the public library setting in some cases for timely, high-quality and authoritative information.

There was a heavier reliance on print materials in the New York visits, and in 10 out of 11 cases where I received print materials, they were not adequate for answering the query. As discussed in chapter 4, two non-authoritative books were received in all three geographic locations. These two books alone accounted for more than half of the non-authoritative answers from print resources (8 of 14) in all visits across states, and for close to half (8 of 18) of all non-authoritative information resources provided. I repeat this finding because this is not a minor point, and has implications not only for policies, but for consideration of how to improve public library practice as well.

It is likely these books appeared on so many of the public library's shelves because of the normative influence of the tools that public librarians use for collection development. Public librarians are unlikely to have the resources or justification to use collection development tools aimed at medical librarians (such as reviews featured in medical journals). Thus, they may be more likely to use tools like *Publisher's Weekly* or amazon ratings rather than tools such as the *British Medical Journal* or the *Journal of the Medical Library Association* as guides for collection development. Additionally, in the case of New York, if an influential member of the library system chooses a book for selection, other member libraries may mimic a respected colleague and also purchase the book. These practices, combined with irregular resource evaluation, have ramifications for health information provision in particular, where non-authoritative information can have a profound effect on not only individuals' well-being, but on population health as well. Training public library staff on how to evaluate health information resources may help to diminish the "Jenny McCarthy effect" so that the publications of popular media stars (with no medical authority or background) aren't the only subject materials available on a library's shelves, as was the case in some of the public libraries I visited.

7.2.1.2 Bridge between medical/health science and public library communities

Even though there aren't differences in credentialing requirements, in all of the investigations I found a strong delineation between the two subspecialties in the library profession: public and medical. The statewide initiative in Delaware seemed to overcome this separation of communities by "embedding" medical librarians in the public libraries. This seems to be a feasible approach, but was launched with external funding and not sustainable once the funding was exhausted.

There are other examples in the literature of cooperative efforts between the two communities of practice, (for example, Hollander, 1996; Huber & Snyder, 2002) and the National Library of Medicine has devoted resources to foster bridges across the disciplines (U.S. NLM, 2003; Ruffin, Cogdill, Kutty & Hudson-Ochillo, 2005). Both groups of practitioners could benefit from collaboration and learn from one another. For instance, public librarians could aid medical librarians with planning and executing programs. Medical librarians could aid public librarians with resource evaluation and conducting health reference interviews. Cross training for library students through internships in different settings may be a way to foster interaction between the two communities of practice. Perhaps regional professional organizations in each of the subspecialties could host each other for hybridization as well. Because interaction should extend beyond the level of individual actors to enact lasting change, further investigation of how public libraries can establish and sustain relationships with local hospitals, health care organizations, and public health agencies to promote health information provision, especially in rural communities, may be beneficial. Ideally, these efforts will serve to create a new "relational space" or organizational field of consumer health where public librarians, medical librarians, and individuals from the health care community meet and share expertise.

7.2.1.3 Sustainability

In all three of the approaches I studied, dynamic individual actors were at the core of the efforts. In the CHIC and Delaware, those individuals were integral to the successful initiation of the projects, not only in terms of conception and planning, but also in securing resources to carry their plans forward. While these dynamic institutional entrepreneurs can initiate, there is inherent difficulty in sustainability when they leave, especially if external resources are exhausted and the initiative has not been integrated or insitutionalized into the organization's function.

The model of Georgia's home-grown initiative is likely to be more feasible to implement, sustain, and replicate. She incorporated health information provision into the existing structure of the organization. Her effort wasn't approached as a departure from existing services, so external resources weren't necessary and underlying logics or preconceived notions of service weren't problematic. She approached health information in the same way other services are undertaken (e.g. children's services), by attending to resources and materials, making space for the effort in the physical facility, offering programs and outreach, and marketing the service.

7.2.2 Recommendations

Due to the complicated nature of health information provision and the underlying logics attached to public libraries, it may be difficult to make sweeping recommendations based on this research. However, there are a few areas where it may make sense to concentrate our efforts in order to address and improve health information provision in public libraries.

7.2.2.1 Easy fix?

It is tempting to overlook or underestimate institutional and organizational forces and make recommendations for easy fixes. But in some libraries, incremental changes may radically improve the health information patrons receive when they have health queries. For example, at

the end of all of the interviews, I asked each interviewee if they had any questions for me. In one case, the library director (one that was unaware of the CHIC as a resource in her system) asked if I could recommend a good online resource for health information. I showed her the NLM's consumer health website, MedlinePlus, and she was ecstatic. Prior to my visit, she had never heard of it. In fact, she had never heard of the NLM or its resources. This isn't surprising; research has shown that there are many public library staff who are not aware of the National Library of Medicine or the services it offers (Smith, 2011). She immediately added a link on the library's website under "Your Health" that takes you to the MedlinePlus homepage that is still there as of this writing, nine months later. Individuals who visit the library's website will now be directed to high quality and authoritative health information that is updated daily. Even though the NLM has worked to market their resources, they have not made the inroads into the public library community one might hope for or expect. Investigating methods for getting the word out in a more universal fashion may be a sound investment.

7.2.2.2 MLIS curriculum

Another area where we can instill changes is in the formal training of our future librarians and information scientists. It is likely that not all MLIS students will engage in health information courses, in fact, not all Library & Information Science programs offer such courses. This doesn't mean there aren't opportunities for training future practitioners, however. For example, in reference courses, to train students on reference interviews, health queries could be used as examples. In information access and knowledge organization courses, the NLM's method of indexing with the Medical Subject Headings can be explored. In this way, we can incorporate consumer health information into the general curriculum, using medical information as learning tools in general core courses (Smith, 2006).

Teaching about research, its conduct and evaluation, is another opportunity for curriculum consideration. A little less than half (22 of 46) of U.S. ALA-accredited Library & Information Science (LIS) programs require some type of research methods course in the core requirements for the Master's degree (ALA, 2010). The advantages of requiring a research methods course in the MLIS curriculum are two-fold: graduates can use it to better inform the library's decision making processes and function; and to help patrons better understand information and research. Thus, librarians can be on the front line, helping to diminish what has been referred to as: the "societal reluctance to take on the role of consumers of research" (Winston, 2008).

Additionally, academic Library & Information Science schools should take advantage of the resource of new graduates from their programs as possible research partners, using libraries as living laboratories to investigate innovative ways to improve services and adapt to newfound roles in an ever changing environment. By teaching LIS students early on about research, we can hope to overcome some of the challenges, such as different types of libraries, subspecialties in the field, and different venues for information dissemination that can create silos of practice. These recommendations apply to training for MLS level practitioners, but over half of public libraries in the U.S. are run by directors who don't possess a MLS degree, what about them?

7.2.2.3 Training programs

We can begin by offering training programs for public library staff, and in fact, there are some already in place. The ALA currently sponsors a Library Support Staff Certification (LSSC) program comprised of 10 skills and competency sets for non-MLS library staff members (ALA, 2013). They are currently seeking IMLS funding to extend this program to library practitioners who are managing or directing libraries and do not possess a MLS degree (N. Bolt, personal

communication, 8/24/12). In Arizona, the State also offers a library practitioner certification for non-MLS staff (Arizona State Library, 2013). The Online Computer Library Center (OCLC) offers over 350 self-paced online courses through its website, WebJunction, on library skills (e.g. collection development and reference policies, technology, and business). They partner with State library organizations to offer access; as of this writing there were 18 states listed as partners (WebJunction.org, 2013).

The regional National Network of Libraries of Medicine (2013) regularly offer webinars and courses on all kinds of topics related to health information and librarianship, including consumer health resources, grant writing, library administration, technology, etc. Webinars in particular may be a valuable training tool, as they don't require the resources needed for travel to training sites. Additionally, in New York State, they can help to alleviate the problem of diminishing training opportunities offered by central libraries through library systems. All of these initiatives require informed and motivated staff, however, and organizations that support and value continuing education.

7.2 Limitations

As with most research, there were limitations with these efforts. I first sought to examine rural public libraries, so in the pilot study, the sample was limited to Upstate New York. There may be uncommon attributes of the region that make the experience there unique. Also, even though the pilot study had a sample that was restricted, there still was a wide range of libraries, in terms of size, staffing, funding, hours open, population served, community support, etc., this may make blanket comparisons difficult.

In all three of the studies that involved public library visits, the health query posed was "Do vaccines cause autism?" It may be that question engendered atypical results among

responses to health queries because there is so much contradictory literature available on the subject. Unfortunately, other issues also have similar levels of poor information (e.g. is fluoride safe?). I specifically chose the autism and vaccine issue because for testing a health query, an issue where most library staff would have similar access to positions represented by the medical community and information that contradicts the medical community provided the most insight.

Health information provision is context and subject specific; each health query may be unique. Therefore, it can be difficult to predict what resources will be used for any given patron visit. In the pilot study, this may have played a role in the discrepancy between reported and actual practices. Additionally, the staff member whom was interviewed by phone may not have been the same person who answered the health query during the library visit. There may have been differences among resources used by different staff members in the library that weren't demonstrated, although this is likely to have been minimized due to the fact that most libraries included in that study were run by one person. In the comparison of the two library systems in New York, again the libraries were primarily rural and the sample size was relatively small. There were only five total libraries (out of 20) with MLS level staff, so it may be that the libraries chosen were not representative, even though a random sampling method of libraries within the systems was employed.

Although my intention wasn't evaluation of service provision, differences in the results of library visits across the settings inevitably led to comparisons. While the samples of public libraries in the studies were selected randomly, they may not have been strictly comparable. The New York studies focused for the most part on rural public libraries. The Delaware visits spanned the entire state, and thus included rural, suburban, and urban public libraries. In Delaware, there was no pre-testing, so to speak, so we can't know if the improved resource

provision in that setting was directly related to the statewide initiative. Additionally, there were differences in the timing of the efforts that may have played a role in the results of health information provision.

At first, I sought to better understand what was happening in rural public libraries and library systems in Upstate New York with regard to health information provision, for those efforts I used random sampling for library visits in an effort to maximize representativeness and reliability. To explore three different approaches to providing health information in a variety of settings, I used a well-defined protocol for the case studies to help ensure validity.

To guard against bias I may have due to the fact that I am a longtime librarian, I purposely performed my research in public libraries in regions that were new to me, in an effort to provide a new outlook. I also utilized multiple methods and employed triangulation of sources with: multiple interviews with a variety of actors (using interview guides): observations across geographical settings; and document analysis. Additionally, I employed member checking to guard against any bias that may have arisen due to preconceived notions or expectations that I might possess due to my background in the library field.

7.3 Future research

There are a number of opportunities and avenues for extending this research. The first that comes to mind is: what are the best ways to provide training for public library staff on health information resources? How can we build better bridges between the medical and public library fields; is the “embedded” medical librarian model replicable? How can we positively influence collection development and resource evaluation in the area of health? How does MLS training, over time, translate to change in quality of health information provision? What about other subjects, such as law, do patrons receive authoritative information when they ask reference

questions related to legal issues; are collections in this subject area kept up to date in public libraries?

Another consideration may be, what about other settings? Is it likely I would find similar results in urban and suburban libraries, and in other states, other countries? What about health information for non-library users? Where are they obtaining health information, are they able to assess what they find? How does medical misinformation gain traction? What impact do levels of health literacy have on health information seeking?

An exploration of how summer reading programs have become integrated into public library function may enable us to investigate the process of new service provision becoming institutionalized in the public library setting. Of course this differs from health information, as it sits well with the perceived educational mission of the public library, but nonetheless, the process could inform our understanding of how service provision can adapt and change.

If we consider public libraries as “platforms for improvement and advancement” (Lankes, 2012, p. 17) another area ripe for exploration is: what role can they play in improving the health of their users and communities? Many libraries offer programs around health promotion, some lend pedometers, some have a visiting public health nurse, others have Wii bowling leagues or offer Tai-Chi instruction. Can we extend this to afterschool programs that offer treadmills for teens, using their own physical activity to power their kindles and laptops? How do we assess the effectiveness of such initiatives? Are our bastions of democracy, public libraries, ready to become community centers of health and wellness promotion? Does it make sense for them to fulfill this role in their communities? Before taking on these research efforts, our first mission should be to endeavor to ensure that when a patron walks into a public library, no matter the size

or location, s/he can expect to receive authoritative health information when posing a reference query.

Appendix A

Definition of terms

Authoritative health information: timely, accurate information that is consistent with current medical findings.

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 (1999), “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.” Central libraries vary by community and population served, but according to the Division of Library Development (1999), 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.

Director/manager: Throughout this study, the terms director, manager, and director/manager are used interchangeably to describe an individual who is the head of an individual library. In New

York State, the classification or distinction between director and manager is predicated on population of legal service area and educational requirement of the position.

MLS: Master's degree in Library Science. There are now a variety of descriptions for this degree, for example, the MSLS (Master of Science in Library Science) and the MSLIS (Master of Science in Library and Information Science). For the most part, I use MLS to generically describe the terminal degree for a professional librarian. When I was describing an individual and his/her specific degree, if s/he possessed a degree that was not the MLS, I used the term s/he supplied.

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, NYS DLD, 2011).

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 (Osborn, 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.

Appendix B

Protocols

Interview Protocol – Pilot Study

Phone Survey

Survey Questions:

- 1- How many reference questions does the library answer annually?
 - 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 pub. date (e.g. if PDR, ask what year they have on shelf)

If online – ask for specifics (e.g. do you start with a search engine, what websites 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?

For libraries with follow-up visits and follow-up surveys:

- A. Does the library have an internal policy for answering reference questions?
 - a. If yes, is there anything specific for health-related queries?
- B. What source would you use if a patron asked, “Do vaccines cause autism?”

Visit Protocol – All library visits

The student/researcher will approach the reference desk, if there is one, if not, they will approach the circulation desk.

Researcher/Student: **Hello, I need help with a reference question.**

Depending on answer – most likely the staff member will offer to help, or will get the person in charge of reference.

Researcher/Student: **I would like to know if vaccines cause autism – can you tell me where to start?**

The student will record the answer given, and note what resources the library staff consulted.

Researcher/Student: **Thanks very much for your help.**

Interview – Library System Comparison Study

- 1- How many reference questions does the library answer annually?
 - 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 pub. date (e.g. if PDR, ask what year they have on shelf)*
 - If online – ask for specifics (e.g. do you start with a search engine, what websites 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- Does the library have a policy for answering reference questions?

Appendix C

Interview Guides

For Library Directors in System with CHIC

- 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 CHIC at Crandall Public Library?
 - Do you use their services?
 - Do you refer patrons there?
- Are you (and/or other professional staff) a member of any professional library organizations?
 - ALA?
 - PLA?
 - MLA?
 - NYLA?
 - Other?
- Do you attend any conferences or training sponsored by library organizations?
 - ALA?
 - PLA?
 - MLA?
 - NYLA?
 - MLA CAPHIS
 - Other?
- Do you attend any other training sponsored by other organizations?
 - Library system?
 - Regional library council?
 - NYS DLD?
 - Other?
- Do you interact with other library directors in the system?
- How many MLS level librarians are employed by the library?
- What is your educational background?
 - Has it involved formal training as a librarian?

For individuals involved in all 3 of the consumer health initiatives

Note: These questions served as a template/guide for starting the conversation.

The interviews were initially guided by the following questions:

- Can you describe the decision-making process that established the consumer health initiative?
 - 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 initiative a way to fulfill that need?
 - Was it due to building/facility renovation or restructuring?
 - How was space allocated for the initiative?
 - 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 was the initiative maintained?
 - Do you have statistics on the efforts (e.g. number of queries answered; programs, etc.)
 - What about sustainability?

Because interviewing is an open-ended process, these queries often led to other avenues of discussion which were then recorded and transcribed.

References

- American Association for the Advancement of Science. (2002). The Challenge of Providing Consumer Health Information Services in Public Libraries. *Healthy People 2010 Library Initiative*. Washington, D.C.: AAAS.
- American Library Association. (2013). *Library Support Staff Certification (LSSC) Program*. Retrieved from <http://www.ala.org/onlinelearning/management/classes/lssc>
- American Library Association. (2012). *Directory of Institutions Offering Accredited Master's Programs*. Retrieved from http://www.ala.org/accreditedprograms/sites/ala.org.accreditedprograms/files/content/directory/pdf/LIS%20DIR_current.pdf
- American Library Association. (2011). *Celebrate National Library Week*. Retrieved from <http://www.ala.org/ala/conferencesevents/celebrationweeks/natlibraryweek/index.cfm>
- American Library Association. (2011). *What ALA does*. Retrieved from <http://www.ala.org/ala/membership/whataladoes/index.cfm>
- American Library Association. (2010). *Alphabetical list of institutions with ALA-accredited programs*. Retrieved from <http://www.ala.org/ala/educationcareers/education/accreditedprograms/directory/list/index.cfm>
- American Library Association. (2010). *State of America's Libraries*. Retrieved from <http://www.ala.org/ala/newspresscenter/mediapresscenter/americaslibraries/index.cfm>
- American Library Association. Office for Research & Statistics (2010). *Issue Brief, Public Library Funding & Technology Access Study. A Perfect Storm Brewing*. Retrieved from http://www.ala.org/research/sites/ala.org.research/files/content/initiatives/plftas/issuebriefs/issuebrief_perfectstorm.pdf
- Arizona State Library. (2013). *Library Practitioner Certification*. Retrieved from <http://www.azlibrary.gov/extension/libraryPractitionerCertificationProgram.aspx>
- Baker, L.M., Spang, L. & Gogolowski, C. (1998). The Provision of consumer health information by Michigan public librarians. *Public Libraries*, 37(4), 250-255.
- Barley, S. R., & Tolbert, P. S. (1997). Institutionalization and structuration: Studying the links between action and institution. *Organization Studies*, 18(1), 93-117.
- Baxter, P. & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13(4), 544-559.
- Becker S., Crandall M.D., Fisher K.E., Kinney B., Landry C., & Rocha A. (2010). *Opportunity for all: how the American public benefits from Internet access at U.S. libraries*. (IMLS-2010-RES-01). Washington, DC: Institute for Museum and Library Services.

- Beckert, J. (1999). Agency, entrepreneurs, and institutional change. The role of strategic choice and institutionalized practices in organizations*. *Organization Studies*, 20(5), 777-799.
- Befort, C.A., Nazir, N., & Perri, M.G. (2012). Prevalence of obesity among adults from rural and urban areas of the United States: findings from NHANES (2005-2008). *Journal of Rural Health*, 28(4), 392-397.
- Buck, N. (2006). Public libraries and immigrants – tradition! *Virginia Libraries*, 52(2).
- Bullock, E.D. (1907). *Management of traveling libraries*. (ALA Publishing Board Library Handbook No. 3). Boston, MA: American Library Association.
- Calvano, M. & Needham, G. (1996). Public empowerment through accessible health information. *Bulletin of the Medical Library Association*, 84(2), 253-56.
- Charmaz, K. (1983). The Grounded theory method: an explication and interpretation. In: *Contemporary Field Research: A collection of readings*. 2nd Ed. Prospect Heights, IL: Waveland Press.
- Chobot, M.C. (2003). Health information outreach: case studies from a field test at eight public libraries. *AAAS Healthy People Library Project Report*, 4-30.
- Cicero (n.d.) quoted by Hassert, R.M. (2011). The library in a public garden. In Rakow, D.A. & Lee, S.A. (Eds.) *Public garden management*. (Appendix E). Hoboken, NJ: Wiley & Sons.
- Coxe, Elizabeth (2006, March 28). *Evidence of harm receives investigative reporters and editors award*. [Press release, St. Martin's Press]. Retrieved from <http://www.evidenceofharm.com/index.htm>
- Creswell, J.W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Creswell, J.W. & Plano Clark, V.L. (2011). *Designing and conducting mixed methods research*. (2nd ed.). Los Angeles, CA: Sage.
- Cure for swollen lymph nodes. (n.d.). In earthlink.com online. Retrieved from http://www.earthclinic.com/CURES/lymph_nodes.html
- Cuyahoga County Public Library. (2010). *Cuyahoga County Public Library Offers Passport Services in Seven Branches*. Retrieved from <http://www.cuyahoga.lib.oh.us/StdBackPage.aspx?id=30500>.
- Davis, G.F. & Marquis, C. (2005). Prospects for organization theory in the early twenty-first century: Institutional fields and mechanisms. *Organization Science*, (16), 332-343.
- Deering, M.J. & Harris, J. (1996). Consumer health information demand and delivery: implications for libraries. *Bulletin of the Medical Library Association*, 84 (2), 209-216.
- deGruyter, L. (1980). The history and development of rural public libraries. *Library Trends*, Spring, 513-523.

- De la Peña McCook, K. (2004). *Introduction to public librarianship*. New York, NY: Neal-Schuman Publishers.
- De la Peña McCook, K. (2011). *Introduction to public librarianship*. (2d ed.). New York, NY: Neal-Schuman Publishers.
- Delaware Division of Libraries. (n.d.). Consumer Health Information Services: Best Practices in Public Libraries Report. Retrieved from http://libraries.delaware.gov/For_Libraries/Planning/documents/Consumer_Health_Best_Practices_-_Public_Libraries.pdf
- deVaus, D. (2001). *Research design in social research*. Thousand Oaks, CA: Sage Publications.
- Dewey, M. (1902). Medical departments in public libraries-a symposium. *Medical Libraries (V)*, 2-3.
- Dias, E. (2012). Why Libraries Are a Smart Investment for the Country's Future. *Time Magazine*, June 27. Retrieved from <http://www.time.com/time/nation/article/0,8599,2118141,00.html>.
- DiMaggio, P.J. (1991). Constructing an Organizational Field as a professional project: U.S. art museums, 1920-1940. In Powell, W.W. & DiMaggio, P.J. (Eds.). *The new institutionalism in organizational analysis*. (p. 267-292). Chicago, IL: University of Chicago Press.
- DiMaggio P.J. & Powell W.W. (1991). Introduction. In Powell, W.W. & DiMaggio, P.J. (Eds.). *The new institutionalism in organizational analysis*. (p. 1-38). Chicago, IL: University of Chicago Press.
- DiMaggio, P.J., & Powell, W.W. (1991). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. In Powell, W.W. & DiMaggio, P.J. (Eds.). *The new institutionalism in organizational analysis*. (p. 63-82). Chicago, IL: University of Chicago Press.
- Ditzion, S. (1947). *Arsenals of a democratic culture: A social history of the American public library movement in New England and the middle states from 1850 to 1900*. Chicago, IL: American Library Association.
- Ellis, D. (1993). The information seeking patterns of academic researchers: a grounded theory approach. *Library Quarterly*, 63(4), 469-486.
- Evjen, S., & Audunson, R. (2009). The complex library: Do the public's attitudes represent a barrier to institutional change in public libraries? *New Library World*, 110(3/4), 161-174.
- Eysenbach, G. & Kohler C. (2002). How do consumers search for and appraise health information on the world wide web? Qualitative study using focus groups, usability tests, and in-depth interviews. *British Medical Journal*, 324, 573-577.
- Fitzpatrick, M. (2005). Review of *Evidence of harm. Mercury in vaccines and the autism epidemic: Medical controversy*. *British Medical Journal*, 330, 1154.

- Flaherty, M.G. (2013). Consumer health provision in rural public libraries: A comparison of two library systems. *Library Quarterly*, 83(2), 1-11.
- Flaherty, M.G. & Luther, M.E. (2011). A Pilot study of health information resource use in rural public libraries in Upstate New York. *Public Library Quarterly*, 30(1), 117-131.
- Flaherty, M.G. & Roberts, L. (2009). Rural outreach training efforts to clinicians and public library staff: NLM resource promotion. *Journal of Consumer Health on the Internet*, 13(1), 14-30.
- Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, 12(2), 219-245.
- Friedland & Alford (1991). Bringing society back in: Symbols, practices, and institutional contradictions. In Powell, W.W. & DiMaggio, P.J. (Eds.). *The new institutionalism in organizational analysis*. (p. 232-263). Chicago, IL: University of Chicago Press.
- Gamm, L.D. (2010). *Rural Healthy People 2010: A Companion Document to Healthy People 2010*, Volume 1. College Station, TX: The Texas A&M University System Health Science Center, School of Rural Public Health, Southwest Rural Health Research Center.
- Georgia Election Connection.(2011). *Public Libraries*.
<http://www.sos.ga.gov/electionconnection/libraries.htm>.
- Guard R., Fredericka, T.M., Kroll S., Marine, S., Roddy, C. Steiner, T.& Wentz, S. (2000). Health care, information needs, and outreach: reaching Ohio's rural citizens. *Bulletin of the Medical Library Association*, 88(4),374-81.
- Gillaspy, M.L. (2000). Starting a consumer health information service in a public library. *Public Library Quarterly*, 18(3/4): 5-19.
- Gouldner, A.W. (1954). *Patterns of industrial bureaucracy: A study of modern factory administration*. Glencoe, IL. : The Free Press.
- Harlow, J. (2010). It's only books 'n' shelves but I like it. *The Sunday Times* online. April 4, article7086815.ece.
- Harris R., Henwood F., Marshall A., Burdett S. (2010). 'I'm not sure if that's what their job is': consumer health information and emerging "healthwork" roles in the public library. *RUSQ*, 49(3), 239-52.
- Hibbard, J.H., Greene, J. & Overton, J. (2013). Patients with lower activation associated with higher costs; delivery systems should know their patients' 'scores'. *Health Affairs*, (32)2, 216-222. doi: 10.1377/hlthaff.2012.1064.
- Hirsch, P.M. & Lounsbury, M. (1997). Ending the family quarrel: Toward a reconciliation of "old" and "new" institutionalisms. *American Behavioral Scientist*, 40(4), 406-418.
- Hoffman, A.J. (1999). Institutional evolution and change: Environmentalism and the U.S. chemical industry. *Academy of Management Journal*, 42, 351-371.

- Hollander, S. (1996). Consumer health information partnerships: the health science library and multitype library system. *Bulletin of the Medical Library Association*, 84(2), 247-252.
- How to find a polling station. (n.d.). In ehow.com online. Retrieved from [How to Find a Polling Station | eHow.com http://www.ehow.com/how_2061843_find-polling-station.html#ixzz1KG6xQYfl](http://www.ehow.com/how_2061843_find-polling-station.html#ixzz1KG6xQYfl)
- Huber, J.T. & Snyder, M. (2002). Facilitating access to consumer health information: a collaborative approach employing applied research. *Medical Reference Services Quarterly*, 21(2), 39-46.
- Institute for Museum and Library Services. (2010). *Public Libraries Survey Fiscal Year 2008*. Retrieved from <http://harvester.census.gov/imls/pubs/Publications/pls2008.pdf>
- Institute for Museum and Library Services. (2011). *Public Libraries in the United States: Fiscal Year 2009*. Retrieved from https://harvester.census.gov/imls/pubs/pls/pub_detail.asp?id=140
- Institute of Medicine (U.S.) Immunization Safety Review Committee. (2004). *Immunization Safety Review: Vaccines and Autism*. Washington (DC): National Academies Press.
- Institution. (n.d.). In Merriam-Webster dictionary online. Retrieved from <http://www.merriam-webster.com/dictionary/institution>
- Ivie, T. (2009) Defining “rural” for rural library research. *The Idaho Librarian*, 59(1), 2.
- Jackall, R. (1988). *Moral mazes: The world of corporate managers*. New York, NY: Oxford University Press.
- Jefferson, T. (1816) letter to Charles Yancey. Retrieved from <http://www.monticello.org/site/jefferson/if-we-are-to-guard-against-ignorance-quotations>
- Jepperson, R. (1991). Institutions, institutional effects, and institutionalism. In Powell, W.W. & DiMaggio, P.J. (Eds.). *The new institutionalism in organizational analysis*. (p. 143-163). Chicago, IL: University of Chicago Press.
- Johnson, C. (2010). Do public libraries contribute to social capital?: A preliminary investigation into the relationship. *Library & Information Science Research*, 32(2), 147-155.
- Kingdon, F. (1940). *John Cotton Dana: A life*. Boston, MA: Merrymount Press.
- Kniffel, L. (2010) Twelve ways libraries are good for the country. *American Libraries*. Dec. 21, Retrieved from <http://www.americanlibrariesmagazine.org>.
- Kortum, P., Edwards C., & Richards-Kortum R.(2008). Impact of inaccurate Internet health information in a secondary school learning environment. *Journal of Medical Internet Research*, 10(2), e17.
- Kranich, N. (2001). *Libraries & democracy: The cornerstones of liberty*. Chicago, IL: American Library Association.

- Kvale, S. & Brinkmann, S. (2009). *Interviews*. (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Lankes, R.D. (2012). Libraries are obsolete. *OLA Quarterly*, 18(2), 12-17.
- Larson, M.S. (1977). *The Rise of professionalism: A sociological analysis*. Berkeley: University of California Press.
- Lincoln, Y.S. & Guba, E.G. (1985). *Naturalistic inquiry*. London: Sage Publications, Inc.
- Linnan L.A., Wildemuth B.M., Gollop, Hull P., Silbajoris C., & Monnig R. (2004). Public librarians as a resource for promoting health: Results from the Health for Everyone in Libraries Project (HELP) librarian survey. *Health Promotion and Practice*, 5(2), 182-190.
- Martin E.R. & Lanier D. (1996). Networking consumer health information: bringing the patient into the medical information loop. *Bulletin of the Medical Library Association*, 84(2), 240-246.
- Medical Library Association. (2013). *Careers in health sciences librarianship*. Retrieved from http://www.mlanet.org/pdf/career/career_brch10.pdf
- Meyer, J.W., Ramirez, F.O. & Soysal, Y.N. (1992). World expansion of mass education, 1870-1980. *Sociology of Education* 65, 128-149.
- Meyer, J.W., Ramirez, F.O., Frank, D.J. & Shofer, E. (2007). Higher education as an institution. In Gumpert, P.J. (Ed.). *Sociology of higher education: Contributions and their contexts*. (p. 187-221). Baltimore, MD: Johns Hopkins University Press.
- Morrice, P. (2005, April 17). 'Evidence of harm': What caused the autism epidemic. [Review of the book *Evidence of harm*, by D. Kirby] *New York Times*. Retrieved from <http://www.nytimes.com/2005/04/17/books/review/17MORRICE.html?pagewanted=2&r=2&adxnln=1&adxnlnx=1360767739-hDRw3Gpyw1srptK/m8EdKQ>
- New York 3Rs Association. (2011). *Reference and Research Library Resources*. Retrieved from <http://www.ny3rs.org/>.
- New York State Department of Health. (2011). *Hospitals in New York State. Hospital Profile*. Retrieved from <http://hospitals.nyhealth.gov/index.php>.
- New York State Division of Library Development. (2006). *Summary of Library Statistics in New York State 2006*. Retrieved from <http://www.nysl.nysed.gov/libdev/stackup.htm>
- New York State Division of Library Development. (2011). *New York Public Librarian Certification*. Retrieved from <http://www.nysl.nysed.gov/libdev/cert/index.html>
- New York State Division of Library Development. Central Libraries Association of the State of New York. (1999). *Central Libraries in the 21st Century: A Long-Range Plan*. Retrieved from <http://www.nysl.nysed.gov/libdev/central/raison.htm>

- O'Mahony, S.C. (2002). *Emergence of a new commercial actor: Community managed software projects*. (Doctoral dissertation). Retrieved from ProQuest dissertations and theses. (3048587).
- Online Computer Library Center. (2013). *WebJunction*. Retrieved from <http://www.webjunction.org/>
- Osbourn, S. (1973). *Library Services in Rural Areas*, (Prepared on Request for the Subcommittee on Rural Development, the Committee on Agriculture and Forestry by the Congressional Research Service), Washington, D.C.: U.S. Government Printing Office.
- Owens, D.M. (2010). Check it out: Get your groceries at the library. April 26, 2010, Retrieved from <http://www.npr.org/templates/story/story.php?storyId=126282239>
- Pearlmutter, J. & Nelson, P. (2011). When small is all. *American Libraries*, 42(1/2), 44-47.
- Pew Internet and American Life Project (2008). *Health information use*. Retrieved from http://www.pewInternet.org/pdfs/PIP_Health_Aug08.pdf
- Pew Internet and American Life Project (2011). *Health information is a popular pursuit online*. Retrieved from <http://www.pewInternet.org/Reports/2011/HealthTopics/Part-1.aspx?view=all>
- Pew Internet and American Life Project. (2012). *Libraries, patrons, and e-books: Part 4: How people used the library in the past year*. Retrieved from <http://libraries.pewInternet.org/2012/06/22/part-4-how-people-used-the-library-in-the-past-year/>
- Pew Internet and American Life Project. (2013). *Health online 2013*. Retrieved from <http://www.pewInternet.org/Press-Releases/2013/Health-Online-2013.aspx>
- Pickard, A. J. (2007). *Research methods in information*. London: Facet.
- Powell, W.W. & DiMaggio, P.J. (1991). *The new institutionalism in organizational analysis*. Chicago, IL: University of Chicago Press.
- Public Agenda (2006). *Long overdue: a fresh look at public and leadership attitudes about libraries in the 21st century*. Retrieved from <http://www.publicagenda.org/press-releases/americans-say-public-libraries-are-essential-21st-century-communities>
- Publisher's Weekly. (2007, April 2). Non-fiction review. [Review of the book *Healing the new childhood epidemics: Autism, ADHD, asthma, and allergies: The Groundbreaking program for the 4-A disorders* by K. Bock & C. Stauth] *Publisher's Weekly*. Retrieved from <http://www.publishersweekly.com/978-0-345-49450-4>
- Reagan, R. (1981). *Statement for National Library Week*, referenced in *Budget Reconciliation: Hearings Before the Committee on Post Office and Civil Service*. Washington, D.C.: GPO, p.179.
- Ritzer, G. (2005). *Encyclopedia of social theory*. Thousand Oaks, CA: Sage Publications, Inc.

- Roter, D. (2000) The Enduring and evolving nature of the patient-physician relationship. *Patient Education & Counseling*, 39(1), 5-15.
- Rubleske, J. (2012). *A Temporal model of mindful interactions around new service conception*. (Doctoral dissertation). Retrieved from ProQuest dissertations and theses. (3509993).
- Ruffin, A.B. Cogdill, K., Kutty, L., & Hudson-Ochillo. (2005). Access to electronic health information for the public: Analysis of fifty-three funded projects. *Library Trends*, 53(3), 434-452.
- Schutt, R.K. (2006). *Investigating the social world*. (5th ed.) Thousand Oaks, CA: Sage Publications, Inc.
- Schwartzman, A.J. (2012). The daily item, 10/24: *Libraries remain relevant in the digital age*. Retrieved from <http://www.mediaaccess.org/roadmap>
- Scott, W.R. (1987). The Adolescence of institutional theory. *Administrative Science Quarterly*, 32, 493-511.
- Scott, W.R. (2005). Institutional theory In Ritzer, G. (Editor). *Encyclopedia of social theory*. (p. 408-414). Thousand Oaks, CA: Sage Publications, Inc.
- Scott, W.R. (2008). *Institutions and organizations: Ideas and interests*. Thousand Oaks, CA: Sage Publications, Inc.
- Scott, W.R. & Meyer, J.W. (1994). *Institutional environments and organizations*. Thousand Oaks, CA: Sage Publications Inc.
- Scott, W.R., Ruef, M., Mendel, P.J. & Caronna, C.A. (2000). *Institutional change and healthcare organizations: From professional dominance to managed care*. University of Chicago Press: Chicago.
- Selznick, P. (1949). *TVA and the grass roots: A study in the sociology of formal organization*. Berkeley: University of California Press.
- Selznick, P. (1992). *The Moral commonwealth: Social theory and the promise of community*. Berkeley, CA: University of California Press.
- Selznick, P. (1996). Institutionalism "Old" and "New." *Administrative Science Quarterly*, 41, 270-277.
- Seo, M. & Creed, W.E.D. (2002). Institutional contradictions, praxis, and institutional change: A dialectical perspective. *Academy of Management Review*, 27(2), 222-247.
- Shera, J.H. (1965). *Foundations of the public library: The origins of the public library movement in New England 1629-1855*. Chicago, IL: Shoestring Press.
- Smith, C.A. (2006). I am not a specialist: Why we all need to be worrying about medical information. *Journal of Education for Library and Information Science*, 47(2), 96-105.

- Smith, C.A. (2010). Electronic health record and librarians: Potential roles and opportunities for information research. *MLA Annual Conference*, Wash. D.C., May 26, 2010.
- Smith, C.A. (2011). "The Easier-To-Use Version": Public librarian awareness of consumer health resources from the National Library of Medicine. *Journal of Consumer Health on the Internet*, 15(2), 149-163.
- Spatz, M.A.(2000). Providing consumer health information in the rural setting: Planetree Health Resource Center's approach. *Bulletin of the Medical Library Association*, 88(4), 382-8.
- Springfield-Greene County Library District. (2011). Registering voters.
<http://thelibrary.springfield.missouri.org/blogs/article.cfm?aid=760&lid=68>
- Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA : Sage.
- Stinchcombe, A.L. (1997). On the virtues of the old institutionalism. *Annual Review of Sociology*, 23, 1-18.
- Swidler, A. (1986). Culture in action: Symbols and strategies. *American Sociological Review*, 51, 273-286.
- Taylor R.S. (1968) Question-Negotiation and information seeking in libraries. *College and Research Libraries*, May, 178-194.
- Texas State Library & Archives Commission. (2011). Children's Internet Protection Act Fact Sheet for Public Libraries. Retrieved from <http://www.tsl.state.tx.us/ld/consulting/tech/cipa.html>.
- Thornton, P.H. & Ocasio, W. (2008). Institutional logics. In Greenwood, R., Oliver, C., Suddaby, R. & Sahlin-Andersson (Eds.). *The Sage handbook of organizational institutionalism*. (p. 99-129). Thousand Oaks, CA: Sage Publications.
- U .S. Census Bureau. (2009). *American Community Survey*. Retrieved from <http://www.census.gov/acs/www/>.
- U .S. Census Bureau. (2010). *Current Population Survey, 2008 and 2010 Annual Social and Economic Supplements*. Retrieved from <http://www.census.gov/hhes/www/hlthins/data/incpovhlth/2009/tab9.pdf>.
- U.S. Department of Agriculture. Economic Research Service. (2010). *County-Level Population Data for New York, Percent change in population, 2000-09*. Retrieved from <http://www.ers.usda.gov/Data/Population/PopList.asp?ST=NY&LongName=New York>
- U.S. Department of Health and Human Services. Centers for Medicare and Medicaid Services. (2011). *National Health Expenditure Data NHE Fact Sheet*. Retrieved from http://www.cms.gov/NationalHealthExpendData/25_NHE_Fact_Sheet.asp
- U.S. Department of Health and Human Services. National Institutes of Health. National Library of Medicine. (2003). *FY 2003 Budget*. Retrieved from <http://www.nlm.nih.gov/about/NLM03cj.pdf>

- U.S. Department of Health and Human Services. National Institutes of Health. National Library of Medicine. (2011). MeSH Database, Definitions.
<http://www.ncbi.nlm.nih.gov/mesh?term=consumer%20health%20information>
- U.S. Department of Health and Human Services. National Institutes of Health. National Library of Medicine. National Network of Libraries of Medicine. NN/LM Moodle. (2013). *Distance Learning opportunities from the National Network of Libraries of Medicine (NN/LM)*. Retrieved from <http://nmlm.gov/moodle/>
- U.S. Department of Labor. (2013). *Occupational Outlook Handbook*. Librarians. Retrieved from <http://www.bls.gov/ooh/education-training-and-library/librarians.htm>
- Van Orden, R. & Olszewski, L. (2011). *Small and Rural Public Libraries: 2004-2008 Trends* Retrieved from <http://www.webjunction.org/rural/-/articles/content/115265463>
- Vårheim, A., Steinmo, S., & Ide, E. (2008). Do libraries matter? Public libraries and the creation of social capital. *Journal of Documentation*, 64(6), 877-892.
- Vavrek, B. (1983). The Hidden Majority: Rediscovering rural libraries. *Wilson Library Bulletin*, 58(4), 266-269.
- Vennesson, P. (2008). Case study and process tracing: Theories and practice. In D. Della Porta and M. Keating (Eds.), *Approaches and methodologies in the social sciences. A pluralist perspective*, (p. 223-239). Cambridge: Cambridge University Press.
- Wedgeworth, R. (1993). *World encyclopedia of library and information services*. Chicago, IL: American Library Association.
- Wilensky, H.L. (1964). The professionalization of everyone. *American Journal of Sociology*, 70, 137-158.
- Winston, M.D. (2008) Research in society values research in concept but not always in practice. *Journal of Information Ethics*, 17(2), 46-60.
- Wood F.B., Lyon B., Schell M.B., & Kitendaugh P. (2000). Public library consumer health information pilot project: results of a National Library of Medicine evaluation. *Bulletin of the Medical Library Association*, 88(4),314-22.
- Wooten, M. (2006). *The evolution of the black higher education field, 1854-1996*. (Doctoral dissertation). Retrieved from ProQuest dissertations and theses. (3238116).
- Wooten, M. & Hoffman, A.J. (2008). Organizational fields: Past, present and future. n Greenwood, R., Oliver, C., Suddaby, R. & Sahlin-Andersson (Eds.). *The Sage handbook of organizational institutionalism*. (p. 130-147). Thousand Oaks, CA: Sage Publications.
- Yin, R.K. (2009). *Case study research: Design and methods*. (4th ed.). Los Angeles, CA: Sage Publications, Inc.

VITA

NAME OF AUTHOR: Mary Grace Flaherty

PLACE OF BIRTH: Baltimore, Maryland

DATE OF BIRTH: November 14, 1960

GRADUATE AND UNDERGRADUATE SCHOOLS ATTENDED:

Pennsylvania State University, State College, Pennsylvania

Johns Hopkins University, Baltimore, Maryland

University of Maryland, College Park, Maryland

DEGREES AWARDED:

Master of Library Science, 1988, University of Maryland

Master of Science in Behavioral Science, 1986, Johns Hopkins University

Bachelor of Science in Therapeutic Recreation, 1982, Penn. State University

AWARDS AND HONORS:

Institute for Museum & Library Services Fellowship for doctoral studies, 2008-2012

PROFESSIONAL EXPERIENCE:

Instructor, School of Information Studies, Syracuse University, 2012

Pre-doctoral Research Intern, SPARC Program, SUNY Upstate Medical University,
Dept. of Pediatrics & Division of Research and Academic Development, 2009-2010

Library Director, Sidney Memorial Public Library, 2002-2008

Library Director/Manager, USQA Center for Health Care Research, 1995-2001

Assistant Director, Lilienfeld Library, Johns Hopkins University School of Hygiene
& Public Health, 1992-1993

Consultant, AHCPR (AHRQ), Armed Forces Research Institute (NIH), 1991-1992

Reference Librarian, Lilienfeld Library, Johns Hopkins University School of Hygiene
& Public Health, 1988-1991