

COMMUNITY HEALTH CENTERS

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Overview and History of Community Health Centers

In the United States community health centers (CHCs) were born out of the War on Poverty, during the Kennedy and Johnson administrations in the 1960s. This was at the height of the civil rights movement, which included a focus on raising people out of poverty through initiatives such as community involvement and the creation of job training programs, business development and improvements in health care for poor people.¹ One physician activist, Dr. Jack Geiger, had just returned from South Africa, where in the late 1950s he witnessed a remarkable strategy for the delivery of primary care health services at community based clinical settings in rural and urban settings.² By the 1960s Dr. Geiger was collaborating in Mississippi with Dr. Count Gibson of Tufts Medical School in Boston, MA, providing health care to civil rights workers.³ It was during this time that Jack Geiger's vision of community health centers emerged. Dr. Geiger presented his idea to government bureaucrats and was instrumental in securing funding for the first community health centers in the United States. In 1965 the Office of Economic Opportunity approved funding for Tufts Medical School to open a health center program at a housing development in the Columbia Point area of Boston and at an unspecified site in the southern part of the country.³ The Mississippi site was later designated to be in the rural area of Mound Bayou, which today is home to the Delta Health Center. In December, 1965 Columbia Point Health Center, the first of its kind in the country, opened its doors.² The Columbia Point program has been in continuous operation since 1965 and is now known as the Geiger Gibson Community Health Center.

Community health centers were officially designated by the federal government in 1965 to provide care to the nation's poor and underinsured and were originally referred to as "neighborhood health centers" by the Office of Economic Opportunity.⁴ Since 1996 health centers have been redefined and include public and non-profit community based health care organizations defined within the Public Health Service Act.⁵ Administratively CHCs fall within the Department of Health and Human Services, under the Health Resources and Services Administration's (HRSA) Bureau of Primary Health Care (BPHC). While each health center program is tailored to meet the needs of its community, all CHCs share a common mission to increase access to primary health care (and related services) for underserved populations, and to improve the health status of the populations served in a culturally competent and linguistically appropriate manner. In 2008 approximately 1,200 organizations have been designated as community health centers, with about 7,000 access sites (some CHCs have multiple locations), serving approximately 18 million patients.⁶

Community health centers (sometimes simply referred to as ‘health centers’) are community-based and community-governed multidisciplinary public and non-profit health care organizations that play a vital role in the provision of ambulatory primary contact health services. They provide preventive approaches to improve the health status of communities, as well as social and enabling services to the populations they serve. Health centers are located in every state and territory of the United States. In 2008 CHCs provided nearly 71 million patient visits to approximately 18 million unique users.⁷ Most health center users are people at or near the Federal poverty level. They are often uninsured and may be homeless, frail older adults, racial and ethnic minorities, or other underserved, at risk and vulnerable populations. Thus CHCs play a vital role as a safety net provider within the health care system of the United States.

The community health center governance model appears to be unique among health care delivery models in the United States. This form of governance is considered to be highly effective. By assuring that a majority of board members come from the surrounding community and are themselves patients of the health center, health centers are better able to identify and respond to the needs of their communities and achieve their missions.⁵ For example, it is the governing board that is ultimately responsible for determining the scope of services offered at their health center. If there is a determination of need for a new service which is outside of the scope of federally mandated services, such as optometry, the decision to add this service would be made at the board level. The health center’s management team, including the chief executive officer, chief medical officer, chief financial officer and other senior managers, would then be responsible for following the board’s mandate through the development of a plan to add the new service.

Paraphrasing Dr Jack Geiger, the editors of the book Moments in Leadership² note that “Geiger likes to say that there is a difference between an institution in a community, such as a subway stop, and a true community institution. By definition, a health center is a community institution. First, in its own staffing, a center generally reflects the diversity of the population for which it works. Second, while a center is not the only institution in a community providing access to care, its ongoing care makes it a much more integral part of the community. The center impacts the health of the whole community, not just the individual.” In a paper by Hunt⁶ the impact of community health centers on the overall well-being of communities is further elucidated, citing examples of how health centers in Massachusetts have evolved into true community centers. For example, Hunt discusses how the health centers have contributed to the economic growth of communities through jobs creation, fostering leadership opportunities, stabilization of local economies, contributed to business revitalization, and by serving as a hub for neighborhood organizing efforts.

While this chapter is limited to a discussion of community health centers as defined by the federal mandate, the reader should be aware that there are other local health care organizations across the nation that serve parallel and sometimes complimentary roles to health centers. These programs have similar missions to health centers and may offer a blend of medical, social, health

education, outreach and and/or other services. Yet they generally do not provide the full scope of mandated services that define a community health center nor do they meet the more stringent requirements of a health center (see section on Program Requirements and Characteristics) as established by federal statutes. Nevertheless, they serve a vital role in communities by acting as another type of safety net for people in need by connecting those individuals to other community organizations, including health care and the other services delivered through CHCs.

The goal of this chapter is to provide the reader with background information about community health centers and how they fit into the health care delivery system of the United States. The reader will further understand how health centers identify and respond to disparities in access to care and disparities in health outcomes. This chapter gives the reader background knowledge regarding how optometry is presently positioned within the array of clinical services offered by health center system, and how the addition of optometric services could favorably impact the health status of health center patients. Challenges facing health centers regarding the addition of optometric services will also be discussed. The chapter will end with the author's perspective on what needs to change at the federal level so that policies could be developed to name optometry as a mandated health center service. While this chapter provides the reader with background information on CHCs, additional independent study and research is encouraged to gain further knowledge of community and populations health.

OBJECTIVES

- Possess a fundamental knowledge of the health center system of the United States
- Understand the governance of health centers, range of services provided by CHCs, patient demographics, insurance status, and CHC revenues/funding
- Understand how CHCs function as a safety net provider to the nation's poor and vulnerable, by identifying, confronting and responding to disparities in health
- Understand the need for on site optometric services at health centers
- Understand why optometric care is an integral part of the care management team at CHCs
- Demonstrate why on site optometric services at CHCs effectively address disparities in access to eye care and disparities in visual health
- Through a case study, learn the start-up components of an on site optometry service at a health center

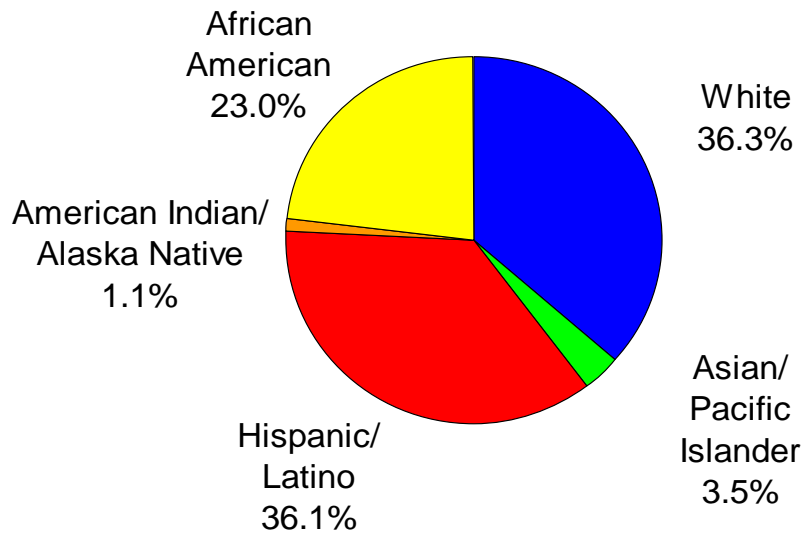
Snapshot of Health Center Fundamentals

How many health centers – there are over 1,200 unique primary sites, some with multiple service locations, resulting in over 7,000 service locations in every US state and territories.⁷

Patient demographics, insurance status, patient visits –The majority of patients served are racial and ethnic minorities. Health center patients are poor with incomes at or near the federal poverty level and most are either uninsured or publicly insured. Health center users represent all ages with the majority being under age 44. (Figures 1-4)

Note that 2006 patient visit data is illustrated by service. (Figure 5) Data on optometry visits has not been collected.

Racial and Ethnic Minorities Make Up Two-Thirds of All Health Center Patients

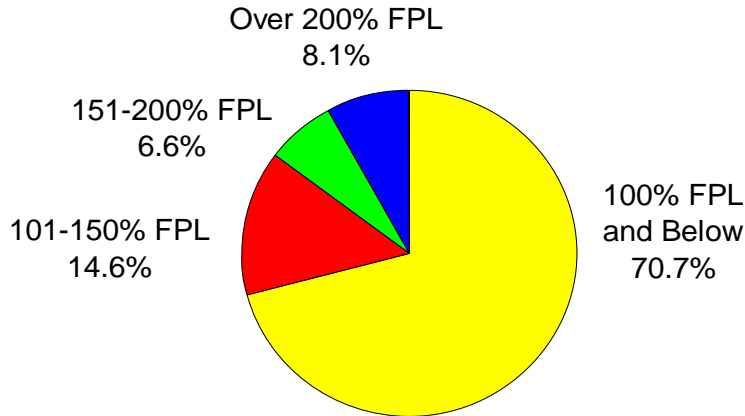


Note: Based on percent known. Percents may not total 100% due to rounding.

Source: NACHC, Robert Graham Center, and Capital Link, *Access Granted: The Primary Care Payoff*, August 2007, www.nachc.com/research.

Figure 1: Racial and ethnic representation of health center patients

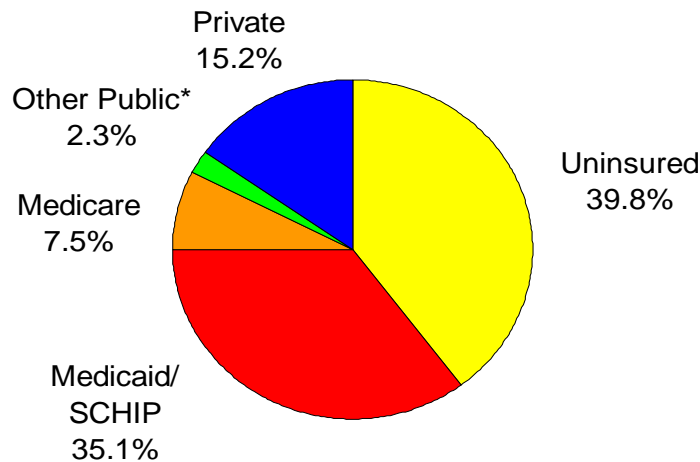
Health Centers Serve Patients That Are Predominately Low Income



Note: Federal Poverty Level (FPL) for a family of three in 2006 was \$17,170. (See <http://aspe.hhs.gov/poverty/05poverty.shtml>.) Based on percent known. Percents may not total 100% due to rounding.
Source: NACHC, Robert Graham Center, and Capital Link, *Access Granted: The Primary Care Payoff*, August 2007, www.nachc.com/research.

Figure 2: Income of health center patients relative to federal poverty level

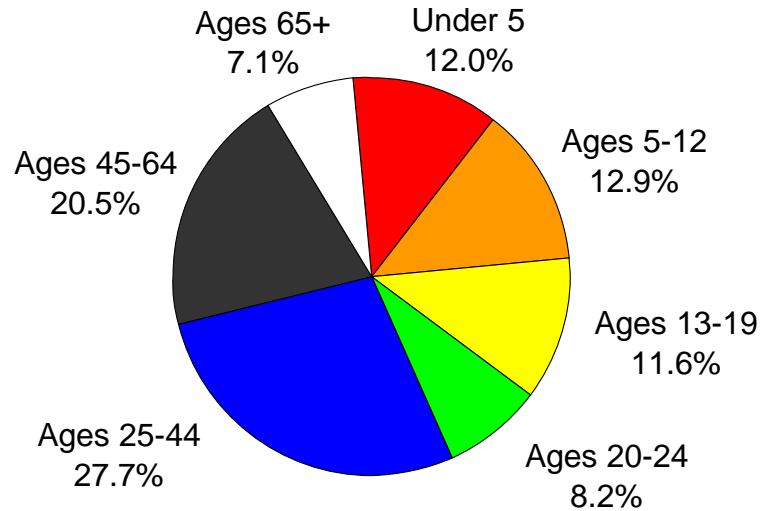
Most Health Center Patients are Uninsured or Publicly Insured



*Other Public: May include non-Medicaid SCHIP and state-funded insurance programs.
Note: Based on percent known. Percents may not total 100% due to rounding.
Source: NACHC, Robert Graham Center, and Capital Link, *Access Granted: The Primary Care Payoff*, August 2007, www.nachc.com/research.

Figure 3: Insurance status of health center patients

Health Center Patients Range in Age

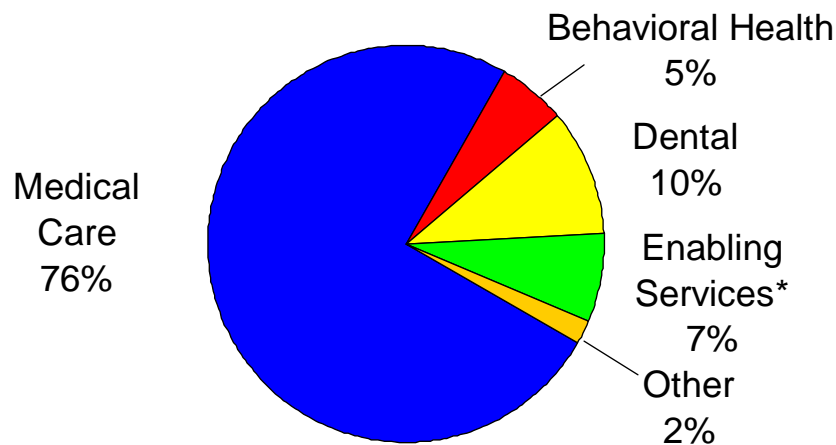


Note: Based on percent known. Percents may not total 100% due to rounding.

Source: NACHC, Robert Graham Center, and Capital Link, *Access Granted: The Primary Care Payoff*, August 2007, www.nachc.com/research.

Figure 4: Health center patients by age

Health Center Patient Visits by Type of Service, 2006



Total = 60 million encounters in 2006

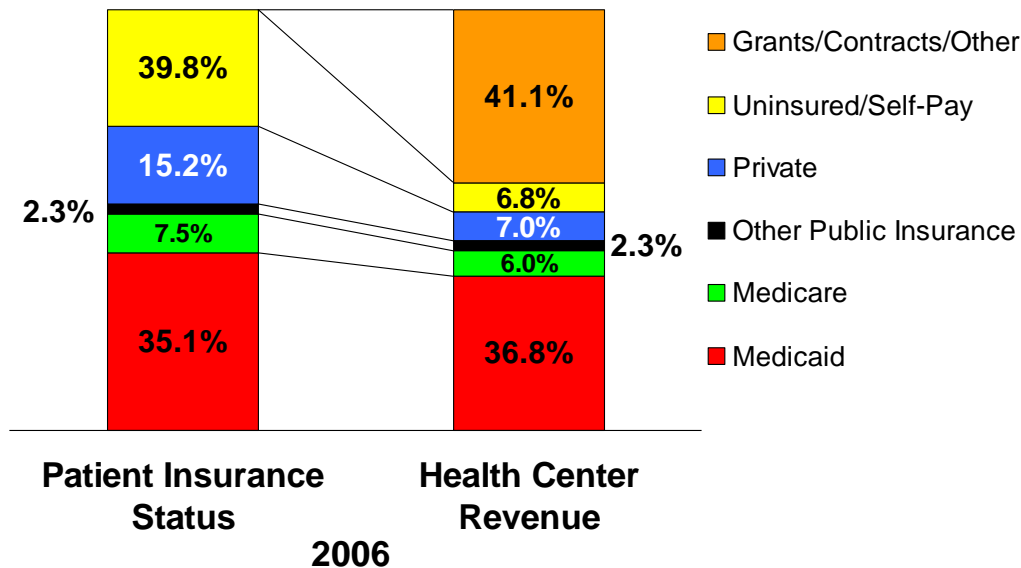
Encounters for enabling services include visits to case managers and health educators.

Source: NACHC, Robert Graham Center, and Capital Link, *Access Granted: The Primary Care Payoff*, August 2007, www.nachc.com/research.

Figure 5: Health center visits by service in 2006

Funding of Health Centers – CHCs derive revenue from a variety of sources including grants, contracts, fees from patients and payers and other sources. (Figure 6)

Medicaid Revenue is Directly Proportional to Medicaid Patients



Notes: Percents may not total 100% due to rounding.
Source: NACHC, Robert Graham Center, and Capital Link, *Access Granted: The Primary Care Payoff*, August 2007, www.nachc.com/research.

Figure 6: Comparison of insurance status of health center patients to revenue sources

Health Center Designations

Community health centers must meet specific program requirements (below) set forth in Section 330 of the Public Health Services Act which entitle them to “cost-based” reimbursement through Medicare and Medicaid.⁵ Based upon a recommendation from the BPHC, health centers are also classified by the Centers for Medicare and Medicaid Services (CMS) into Federally Qualified Health Centers (FQHCs), which account for approximately 90% of health center programs, and FQHC Look-Alike Health Centers (Look-Alikes), comprising the remaining 10%. While both FQHCs and Look-Alikes offer similar services and both are eligible to receive cost based reimbursement from Medicare and Medicaid and are eligible to participate in the 340B pharmaceutical program, there are differences. Only FQHCs receive federal grant support from Section

330 and only FQHCs have access to malpractice coverage through the Federal Tort Claims Act.⁴

Whether designated as a FQHC or as a Look-Alike, health centers may be further subdivided into specific categories representative of the populations served:

- Community health centers including urban, rural and school-based sites
- Migrant health centers which care for seasonal workers and their families
- Homeless program centers which provide both outreach and on site services to homeless populations
- Public housing based centers providing care for resident families of those housing facilities

Program Requirements⁸ and Characteristics of Health Centers

According to the Health Center Program of the Public Service Act, a health care organization must meet specific requirements and follow accountability and governance requirements in order to be eligible to apply for FQHC status. The following synopsis is the minimum set of requirement and standards in place for FQHCs:

- The center must be located in a federally designated high-need and underserved area
- The center accepts all patients, regardless of insurance status, and provides either free care or fee for service care that is adjusted based on ability to pay
- The center is required to provide primary health services⁹ defined below.*

Below adapted from⁹: The Health Center Program: Section 330 of the Public Health Service Act (42 USCS § 254b) Authorizing Legislation of the Health Center Program
<http://bphc.hrsa.gov/about/legislation/section330.htm>

In general, the term "required primary health services" means:

- Basic health services which, for purposes of this section, shall consist of
 - Health services related to family medicine, internal medicine, pediatrics, obstetrics, or gynecology that are furnished by physicians and where appropriate, physician assistants, nurse practitioners, and nurse midwives;
 - Diagnostic laboratory and radiologic services;

- Preventive health services, including--
 - Prenatal and perinatal services;
 - Appropriate cancer screening;
 - Well-child services;
 - Immunizations against vaccine-preventable diseases;
 - Screenings for elevated blood lead levels, communicable diseases, and cholesterol;
 - Pediatric eye, ear, and dental screenings to determine the need for vision and hearing correction and dental care;
 - Voluntary family planning services; and
 - Preventive dental services;
- Emergency medical services; and
- Pharmaceutical services as may be appropriate for particular centers;
- Referrals to providers of medical services (including specialty referral when medically indicated) and other health-related services (including substance abuse and mental health services);
- Patient case management services (including counseling, referral, and follow-up services) and other services designed to assist health center patients in establishing eligibility for and gaining access to Federal, State, and local programs that provide or financially support the provision of medical, social, housing, educational, or other related services;
- Services that enable individuals to use the services of the health center (including outreach and transportation services and, if a substantial number of the individuals in the population served by a center are of limited English-speaking ability, the services of appropriate personnel fluent in the language spoken by a predominant number of such individuals); and
- Education of patients and the general population served by the health center regarding the availability and proper use of health services.
- The center offers “enabling services” that facilitate care utilization, such as interpreting and translation, outreach, case management, transportation, and health education;
- The center customizes its services to meet specific health care, cultural, and other needs of patients
- The center develops and maintains an ongoing quality improvement program to ensure continuous performance improvement in both clinical services and management
- The center is community governed by a patient-majority board

**Note that optometry is not included in the mandated scope of primary medical services at a FQHC or Look-Alike health center. Optometry and ophthalmology are designated as specialty services. To add optometry, a health center board may seek a change in the scope of service.¹⁰ However, when adding a non-mandated service, a CHC is required to justify how the additional service will result in improved health status for CHC patients and to make it available to all patients without regard to ability to pay and available on a sliding fee scale. A reasonable justification for optometry might, for example, be to augment diabetes care management. (See section: “Summary of How to Get Started with Optometric Services at a CHC” for further information on change in scope.)*

Public Health Principles Related to Community Health Centers

There are a series of complex issues in health care and public health which serve to illustrate why health centers play such a vital role in the nation’s health care delivery system. The fact that *health centers provide care to the underserved* is at the heart of their existence. Further, it is a CHC’s unique ability to *identify and respond to disparities in access to care*¹¹ that contributes to improved health outcomes and ultimately overall improved health status. These impressive and well documented results are further substantiated by a look at quality and performance measures, cost effectiveness, care management and continuity of care delivered to patients by health centers. Taken together, health outcomes for CHC based patients are equal to or better than the health outcomes at more costly settings such as hospitals or emergency rooms.¹²⁻¹⁴

Another effective way that health centers seek to *decrease barriers in accessing care* is by engaging the community in its mission, first through the shared community governance model and then by working with the community to identify potential barriers to care. The community is thus an integral partner and stakeholder in developing appropriate strategies and access solutions. For example, if language and culture are identified as factors that may influence a person’s decision to seek or avoid care at the center, then hiring a multi-cultural staff reflective of the demographics of the community, providing care using bilingual staff and interpreters (who also serve as patient care advocates and care coordinators), and marketing services in a multiple languages will send a powerful message to the community that all are welcome. Another example of decreasing barriers to access is by providing affordable or free care based on a sliding fee scale such that no one is turned away because of lack of insurance or ability to pay.

Health centers also engage their communities in *identifying needed outreach services* and programs to reach infrequent users and non-users of the center’s services. Outreach is yet another example of how health centers seek to achieve improved health status of a community, by reaching out to residents to provide health education and information about the vast array of issues confronting a community. CHCs offer these services in a safe and welcoming manner. For example, if teen pregnancies are identified as a concern then

various staff within the center, such as adolescent outreach and care providers, family planning staff, behavioral health staff, substance abuse counselors, after school program staff and even adolescent focus groups might collaborate to design an outreach program. The peer based activities and education developed would be directed at addressing the needs and issues that teens face, including teen pregnancies, in order to help them make healthier and more informed life choices.

Community health centers also seek to *identify specific disparities in health status* within their community, including *disparities in health outcomes* and then tailor programs to reduce those disparities. Two examples in visual health disparities serve as powerful reminders of the importance of the need for eye care at CHCs and optometry's role as a member of the on site care team at CHCs. According to 2008 data from Prevent Blindness America¹⁵ and National Institutes of Health¹⁶, the prevalence of diabetic retinopathy in people of Hispanic descent is 7.3% compared to whites at 4.7% and the prevalence of glaucoma in blacks is 3.8% compared to whites at 1.1%.¹⁶ If a health center is demographically comprised of a significant number of users who are of Hispanic descent and/or are black then a governing board, in conjunction with the chief executive officer and chief medical officer, might seek a change in scope of services in order to add optometry as a needed service that could respond to and reduce these disparities in visual health. In this example adding optometric services would enable the health center to respond to disparities in visual health status.

Another great challenge confronting many disenfranchised communities is the ability to be referred to and successfully connected to advanced medical treatment, surgical care and rehabilitative services after a primary diagnosis has been made. In most instances this would require referral to a community hospital or to large urban hospital or medical center. By being located in medically underserved areas, health centers are able to *facilitate access to secondary and tertiary care* services because they serve as a 'care connector' for patients. The health center, through its referral network, is able to bridge the gap between providing basic services to its patients and assuring that advanced health care services are delivered through its collaborations and/or referral arrangements with local area specialists, hospitals, medical centers and rehabilitation centers.

In summary, the CHC system of the United States is one of the most impressive and effective health care delivery systems in its ability to identify and respond to disparities in access to care and disparities in health outcomes. The improvements in health status for CHC users are impressive and widely documented. Despite all of the progress made in the area of improved access for health services and health outcomes, there is still much work to do in the area of access to optometry and other eye services. According to the Bureau of Primary Health Care's Uniform Data System (UDS), in calendar year 2007, only 18% of federally funded health centers provided on site optometric care.¹⁷ This same percentage of on site optometry (18%) was reported in a paper by Zuevas¹⁸, citing 2004 UDS data. As a comparison, the 2004 UDS data reports on site preventive dental services at 74.4% and 2007 data for preventive dental

services at 73.9%. Thus, based on the use of a comparison to dental services, which is also not specifically mandated as a required CHC service, there is both opportunity and ample room for growth for on site optometry. This opportunity has been underscored in a comprehensive paper by the American Optometric Association's Community Health Center Committee⁴, which not only provided information on visual health disparities in populations similar to health center users, but also examined the public health and health care cost impacts of undiagnosed and untreated eye disorders and diseases on underserved populations. While research is still needed to fully document the extent to which health center users need eye care, the care model that is most common and successful at health centers is to provide services on site. The discussion section elaborates on options available to optometrists who have interest in community health practice at health centers.

The next section is devoted to a discussion on how to get involved with a community health center that would like to have optometric services on site. Beginning with a summary chart that offers guidance on how to get started, the chapter continues with a case study of a health center in Massachusetts that wanted eye care to be a part of the services available to patients. This chapter ends by summarizing the key issues impacting growth of optometry at CHCs, including a discussion on policy matters. Optometry's future penetration to the health center system requires a change in thinking from policy makers and leaders in the profession, so that optometrists who have a desire to care for needy populations will have access to those opportunities and will also have a viable career path as a health center optometrist.

Summary of How to Get Started with Optometric Services at a CHC

- Begin by researching the health center^{19,20} at the National Association of Community Health Centers www.nachc.com and the Bureau of Primary Health Care at <http://bphc.hrsa.gov/>
- Meet with Executive Director/Chief Executive Officer (ED/CEO) of CHC and develop relationship with senior management and leadership of center
- Develop business plan with chief financial officer (CFO) and ED. Refer to on line resources of the American Optometric Association^{21,22} at <http://www.aoa.org> and <http://www.aoa.org/x6493.xml> for sample business plan and other resources to start an eye care service at a CHC
- Components of a business plan are beyond the scope of this chapter but should include a minimum of three years of operations and the following information:
 - Annual total visits (all services) to the CHC
 - A forecast of visits to eye care – use 10% of total visits as a conservative estimate for the total visits to optometry
 - Review of payer mix and reimbursement for commonly coded services and procedures at the CHC (local rates may apply)
 - Develop personnel needs and expenses (professional, administrative and support staff)
 - Develop equipment list (include fixed equipment/instruments and hand held equipment)
 - Estimate start up costs such as supplies, marketing, noncapital items
 - Estimate of capital improvements – costs associated with the space, such as new build out vs. renovation of existing space
 - Forecast of overhead (carrying costs) for space
 - Estimate revenues for professional services and optical sales (gradual increase over three years to reach full capacity)
 - Estimate other expenses for the service such as IT, utilities
 - Calculate total revenues and expenses to generate a profit and loss statement
- Professional presentation to governing board on optometry and eye care
- Board votes to add optometry service and authorizes management to proceed. (Board may need to seek a change in scope of services at the CHC to add optometry.^{10,23} Requirements for seeking a change can be found at: <http://bphc.hrsa.gov/policy/pin0801/definingscope.htm> and <http://bphc.hrsa.gov/scope/formats.htm>
- Management works with team: CHC management group, optometrist or other collaborator, architect and other staff to develop plan for the service
- CHC hires optometrist and support staff
- Optometrist works with CHC to set up of program, contact vendors, conduct in-service training programs about optometry and eye care for CHC staff, builds relationships with community, works with health center management to ready the service for opening
- Open for business

CASE STUDY: Lynn Community Health Center* in Lynn, Massachusetts

Statement of need: A thriving health center exists in the city of Lynn, on the north shore of Massachusetts. While the health center offers many services to its community, access to comprehensive eye care services remains limited to periodic eye exams for patients performed by consultant ophthalmologists, primarily evaluating patients with diabetes. The center serves a diverse patient base, including families with children, patients of Hispanic descent and blacks. While there is a pressing need to better manage the eye care needs of patients with diabetes, the leadership of the health center recognizes that access comprehensive eye care and optometric services for all patients is needed. This section will present a case study on how the health center collaborated with an academic program in optometry to meet this need for optometric care.

*(*Information in these section about the mission, organization and governance, demographics/background information and narrative to Massachusetts Department of Public Health are adapted with permission from LCHC Annual Report of 2007-2008 and other materials provided by LCHC Executive Director Ms. Lori Berry in an email correspondence to author dated October 21, 2008.)*

Components of Case Study Adding Optometry Services at Lynn Community Health Center Lynn, Massachusetts

- Calendar of events leading to decision to add optometry service
- Mission statement of the health center
- Organization and governance of the health center
- Demographics of Lynn and background on Lynn Community Health Center
- Public health implications for Lynn, MA regarding visual health status
- Narrative to Massachusetts Department of Public Health to add eye service

Calendar of events leading to decision to add optometry to LCHC

- 2005-2007: Occasional informal discussions were held between the executive director of LCHC and senior management of the New England Eye Institute (NEEI) about optometric services at LCHC
- December, 2007: First formal meeting between LCHC and NEEI senior management to development initial business model for service
- July, 2008: Presentation by NEEI to LCHC Board of Directors regarding role of optometry in addressing disparities in visual health and improved health status by addition of comprehensive eye care service
- September, 2008: In anticipation of LCHC board of directors November, 2008 meeting to discuss optometry service, executive director works with LCHC CFO, NEEI, administrative staff and architect to develop full proposal for board vote. (See narrative to MA Department of Public Health)
- November, 2008: LCHC Board votes to add optometry as a new service
- December, 2008 – February, 2009: NEEI and LCHC refine plans, LCHC raises capital for equipment, and professional search begins for optometrist to lead eye care program, including teaching affiliation with optometry students
- February, 2009: Optometrist hired and assists LCHC with set up of eye service, begins to build schedule, conducts in-service training with other CHC staff, meets with provider staff, meets with administrative staff
- March, 2009: Optometry service expected to open for business

Mission Statement of the Lynn Community Health Center - Comprehensive Health Care for Everyone in Our Community (May 12, 1997)

“Our purpose is to provide Comprehensive Health Care of the highest quality for everyone in the Lynn community, regardless of ability to pay.

As community leaders, we are responsible to the community for proactively identifying, developing and improving programs to address the full spectrum of health and mental health needs in our community.

Our strongest commitment is to assure access to comprehensive health care for all populations in Lynn and surrounding communities on the North Shore, particularly medically underserved, poor, minority and immigrant populations, children and families, the elderly and others at high risk for health problems.

Our programs emphasize prevention, health promotion and reaching out to our community by providing services in a variety of community settings and languages.

We are determined to assure the continuation of our mission in the changing health care environment and will aggressively identify, analyze, implement, and monitor programs and affiliations that will enhance the well being of the Health Center’s constituency.

In order to meet this challenge the Health Center is committed to recruiting, developing, training, and supporting the highest caliber of providers, staff and volunteers.”

Lynn Community Health Center Organization and Governance

The health center, as a Federally Qualified Health Center (FQHC), is governed by a community Board of Directors. Our board has 24 members, who represent a cross-section of the population served by the health center and must either live or work in Greater Lynn. Over 50% are patients of the health center. Included are a consumer representative of our Healthy Schools Healthy Communities site at Classical High School and several representatives of the West Lynn/Market Square area.

The Board of Directors has responsibility for setting policies of the corporation (a not-for-profit entity), managing and controlling all property of the corporation, and assuring the financial viability of the organization and the quality of its services. The Board of Directors delegates administrative and management responsibilities to the Executive Director. The Board has the responsibility for recruiting, hiring and doing regular performance evaluations of the Executive Director.

The Board has a number of standing committees, which meet monthly, between full board meetings: Strategic Planning, Finance, Development, Nominating, and Quality Improvement and Compliance. The Executive Committee, composed of the officers and committee chairs, meets periodically, as needed.

Demographics of Lynn and background information on LCHC

Lynn is an aging, densely populated factory town with a population of 87,991 (2006 American Community Survey). Located 11 miles north of Boston on the Atlantic coast, Lynn has long been a destination for new immigrants and that trend continues today.

Both 2000 census and 2006 American Community Survey data show significant increases in the numbers of Latino residents, in particular. Between the 1990 and the 2000 census, the overall population in Lynn increased by 10%, with an increase of 32% in minority populations. Significant population growth in 2010 has been projected for the city of Lynn by the Massachusetts Institute for Social and Economic Research (MISER). The 2006 data indicate growing Hispanic, Black and Asian populations and a declining white population in Lynn. Minorities comprise 43.9% of the population in Lynn, as compared to 15.5% of the population statewide. Of the total population in Lynn, Hispanics represent 22.7%, Blacks (non-Hispanics) 12.5%, and Asians 6.2%. Close to 30% of the population in Lynn is under the age of 18 and 14.3% is over 65.

The changing population of the Lynn community is most accurately reflected in its public schools. The percentage of Lynn children whose first language is not English is 48.2% as compared with 14.9% in Massachusetts as a whole. 23.2% of Lynn children have limited English proficiency vs. 5.6% statewide. There has been continuing growth of immigrants and recent arrivals

to Lynn. In addition to the large numbers of Latino, Cambodian and Russian residents, the fastest growing newcomer groups to Lynn are from Burma, Liberia, Burundi and Iraq.

The per capita income in Lynn, according to 2000 census data, was \$17,492 as compared to the State average of \$25,952. 16.5% of the Lynn population lives at or below the federal poverty level, as compared to a statewide percentage of 9.3%. 37.9% of the Lynn population is considered low-income, below 200% of the federal poverty level. 75.1% of the students attending Lynn Public Schools receive a free or reduced price lunch, another indication of the high prevalence of students coming from low-income families. Nationally, the child poverty ratio is 1 in 5: in Massachusetts, it is 1 in 4: in Lynn it is 1 in 3.

Access to health care in Lynn has been a continuing problem. The shortage of primary care givers in Lynn is recognized by the federal government which has designated the low income population of the city as a Medically Underserved Area and a Health Professional Shortage Area, with a primary care physician ratio to population that is among the lowest in Eastern Massachusetts.

Lynn has the unfortunate distinction of having among the highest rates of premature (before age 75) deaths in the Commonwealth. Infant mortality rates are almost twice the state average and the number of teen births is twice the state average. Rates of TB, Hepatitis B, Syphilis, Gonorrhea and Chlamydia are also much higher in Lynn than the state as a whole. Most recently, heroin related deaths have increased dramatically and are reflected in Lynn's general death rates from Alcohol and other Drug Use.

The Lynn Community Health Center has served as the primary source of medical services in one of the most severely medically underserved communities in the Commonwealth since its beginnings as a storefront in 1972. The health center now has 60 FTE physicians, nurse practitioners, physician assistants, midwives, dentists, mental health and nutrition clinicians and provided 165,000 outpatient encounters to 28,563 patients this past year – almost one out of every three Lynn residents.

The Lynn Community Health Center is accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). JCAHO accreditation is awarded to organizations that provide high quality care for the patients they serve. The Lynn Community Health Center is a freestanding federally qualified community health center (FQHC) which provides pediatric, family practice, adult medical and ob/gyn primary care services, as well as behavioral health and social services, health education, family planning, comprehensive HIV/AIDS services, nutrition services, a dental clinic and a pharmacy. In addition to our main site in downtown Lynn, the health center operates two comprehensive primary care practices in the West Lynn/Market Square area. The health center also has six school based health centers in the Lynn Public Schools and administers the WIC program for Lynn and 8 other North Shore cities and towns.

The health center operates two specialized primary care programs for seniors as part of a joint venture with Greater Lynn Senior Services (the Elder Service Plan of the North Shore). The Program for All-Inclusive Care for the Elderly (PACE) provides comprehensive prepaid health and long term care for

over 350 frail nursing home eligible Medicaid seniors at three sites in downtown Lynn. The Senior Care Options (SCO) program provides another comprehensive multi-disciplinary prepaid primary care option for an additional 135 Medicaid eligible seniors, including those who are not nursing home eligible.

The health center has been successful in strategically building access to health care in our community through extensive collaboration with other local health care and human service providers, such as the North Shore Medical Center, Greater Lynn Senior Services, The New American Center, Project COPE, the Lynn Shelter Association, Neighborhood Legal Services, HealthQuarters, and the Lynn Health Task Force, as well as educational institutions such as the Lynn Public Schools, Head Start and the North Shore Community College.

As the result of an ongoing commitment to collaborative planning with staff, board members, patients, advocacy groups and agencies in Lynn over the past decade, the health center has developed a number of innovative programs to improve the health of the Lynn community.

The health center's target priority populations are citizens with the greatest barriers to care: the poor, minorities, non-English speaking, children, teens and the frail elderly. Since moving to our main facility in Lynn's central business district in 1993, we have experienced significant growth every year. Due to the extreme shortage of primary care providers serving the downtown population, we have become the largest provider of primary care services in the city.

Over 90% of the center's clients live at or below 200% of the federal poverty income guidelines. The health center has made a major commitment to assisting uninsured community residents in applying for MassHealth, Healthy Start, the new Commonwealth Care and Commonwealth Choice plans, or Free Care.

As the only provider in Lynn with significant numbers of bilingual and bicultural staff, the health center serves many Latino, Cambodian and Russian families and individuals. As the Massachusetts Refugee and Immigrant Health Program's health assessment service for the North Shore we have also attracted patients from Burma, Somalia, Liberia, Burundi, Iraq, Somalia and many other countries. With the support of the Blue Cross Blue Shield Foundation we have made an ongoing health center-wide commitment to improve our cultural competence as an organization and to assure the delivery of effective care that incorporates the cultural values and beliefs of the patients that are served.

The public health questions for Lynn, MA regarding visual health status:

- What improvements in visual health status and overall health status could be derived from adding optometric services in all age groups (such as a decrease in the number of individuals with uncorrected refractive error, prevention of vision loss from diabetic retinopathy and glaucoma, etc.)?
- Is there a risk for permanent vision loss due to asymptomatic progressive eye diseases and vision disorders in this community because of lack of eye care (such as amblyopia, diabetic eye disease, glaucoma)?

- What could be the public health consequences associated with poor access to comprehensive eye care (such as need to increase social and enabling services for patients with permanent visual impairment)?
- What could be the increased health care costs associated with lack of access to comprehensive eye care and resulting permanent vision loss (such as cost of support services for visually impaired individuals)?
- What are the possible social consequences for patients with permanent vision loss (such as loss of independence, loss of family support)?
- What are the possible economic consequences of patients who have permanent vision loss (such as loss of a job, housing, and/or health insurance)?
- Are there other economic ramifications to the community as a result of poor access to eye care (such as to the need for the school system to develop special programs to manage learning problems and developmental delays that have underlying visual diagnoses)?

Narrative sent to Massachusetts Department of Public Health requesting addition of Optometry Service - September, 2008

Lynn, Massachusetts is an aging, densely populated factory city (population 87,991) located north of Boston. Recent data show continuing increases in Hispanics, Asians and African Americans, and a growing number of immigrants. Of the total population in Lynn, Hispanics represent 23.3%, Blacks 12.2%, and Asians 8.4%. 34.1% of the Lynn population lives under 200% of Federal Poverty Guidelines and per capita income is only \$17,492. Lynn residents are among the most severely medically underserved in the state, and Lynn is a designated health professional shortage area (HPSA).

The health center serves a largely uninsured and underinsured patient population that has been hit especially hard economically in these difficult times. Poor health indicators, lack of other available health services and extensive poverty make Lynn a priority needs area for comprehensive and affordable medical services.

Over the years the health center has developed a variety of health services, based on the needs of the population. The vulnerable populations that we serve do not have adequate access to vision services, which has prompted us to develop a relationship with the New England Eye Institute (NEEI), located in Boston Massachusetts. NEEI is the clinical system of the New England College of Optometry and has worked with a number of other health centers in Massachusetts to bring vision care services to underserved populations by appointing an Optometrist and Optometry students to provide comprehensive eye care. NEEI will recruit an Optometrist to serve as both a faculty member at the New England College of Optometry and as Clinical Director for a new Eye Clinic at the Lynn Community Health Center.

Objective: Our objective is to develop a comprehensive program that will provide access to affordable vision care for everyone in our community and, in

particular, will meet the needs of a number of the most vulnerable populations we serve:

- The health center currently serves approximately 1600 patients with diabetes, who currently have little or no access to annual retinal screenings
- The health center serves 6200 African Americans who are at particular risk for developing Glaucoma and subsequent blindness, preventable with access to annual eye exams
- The health center serves more than 9000 children and youth under 21 who do not have access to affordable eye care or eyeglasses

As with other preventative care measures, there is also a cost benefit to routine eye care because major problems can be identified and treated before they require more intensive interventions.

The project involves locating the new Eye Clinic in leased space on the fifth floor of 23 Central Ave in Lynn. There is a current lease in place for the fifth floor, which ends March 1, 2012 with an option to renew at that time. We are envisioning this as temporary space for this service. Our plan is to move the Eye Clinic to a new facility for the Lynn Community Health Center that is currently in the planning stages.

We are also planning to move our Behavioral Health Department from its current location at 298 Union Street to newly leased space on the third floor of 23 Central Ave. on or about November 1, 2008. We have occupied the first floor (WIC) and the mezzanine (Administrative Offices including Finance and Billing, Human Relations, Information Technology and Development) since 1999.

The space on the fifth floor of 23 Central Ave. requires only minor cosmetic changes to be able to house the new Eye Clinic.

The leased area will have a reception/waiting area, three eye exam rooms, one of which will include an optical area, and an administrative office. The clinic will share the handicapped public toilet rooms which are located outside the clinic off the elevator lobby and main stairs. The services provided do not require a specimen toilet within the clinic.

The clinic will provide comprehensive eye care, including routine eye exams, eye glasses dispensing, retinal screening and testing for glaucoma. The service will be staffed by an Optometrist and optometry students from the New England College of Optometry. There will also be a scheduled part-time Ophthalmology consultation service, scheduled 3-4 hours per week. Eye care procedures are non-invasive and therefore do not require any sterilization of instruments or a soiled holding area. Eye care instruments and surfaces require only simple disinfection procedures, and the standard used by optometrists and ophthalmologists is the application of alcohol wipes to disinfect instruments and surfaces between uses.

The clinic will share the reception/waiting area with our Social Services department, which will be located adjacent to the Eye Clinic offices. Our Social Services Department provides non-billable counseling and case management

services to health center patients. Social Services patients will wait in the same reception/waiting area as the Eye Clinic patients. The Eye Clinic receptionist will greet the patients and will let the Social Service staff member know (via telephone intercom) that the patient has arrived. The social service patients will be met in the waiting room by a social services staff member and escorted to the office where they will be seen. Typically there are no more than an average of 1-2 social service visits per hour. The adjacency of the Social Services department to the Eye Clinic will enhance the comprehensiveness of the services available to patients of the Eye Clinic.

The Janitor's closet for the floor is adjacent to the public toilet room, located just outside the clinic off the elevator lobby and main stairs. It is intended to be shared by the other two much smaller tenants on the floor. The health center's cleaning company will be responsible for cleaning the Eye Clinic and Social Services area operated by us, and they will utilize the Janitor's closet to store their equipment and materials.

Conclusion of Case Study for LCHC

With the inception of a new optometry service at LCHC, comprehensive eye and vision services will be available to all patients of LCHC. The eye service will offer full scope eye care including optometry, optical services and consultant ophthalmology. The eye and vision care needs of all age ranges will be fully met through on site optometry and the support of consultative ophthalmology and the other medical, social and enabling services available to patients at LCHC. Patients of LCHC will be better served with access full time eye care. The optometrist will be a member of the medical staff and care team, so that patients will be assured of high quality, comprehensive and coordinated care in their medical home. The eye service will also serve as a referral source within the health center, as well as drawing new patients from the community to the health center who are first seeking eye care. Importantly, disparities in visual health status will finally be addressed for this needy community.

Discussion and Policy Implications Regarding Optometry at Health Centers

In 2006, the Centers for Disease Control published a report entitled "Improving the Nation's Vision Health – A Coordinated Public Health Approach".²⁴ The report recommends that a national strategy be developed to address disparities in visual health, including collaborations with community-based organizations. This chapter has already addressed how health centers could be key stakeholders in advancing the goal of improved visual health for the communities nationwide. The report notes that community-based organizations "constitute important partners because they have community access and can increase people's awareness about vision health, thereby helping to effect behavioral change in these communities." Given that health centers are already highly responsive to access barriers and health disparities, are located in federally designated areas of need, and provide services in both rural and urban

communities, they would appear to be highly desirable collaboration partners in a national strategy to improve visual health.

The best model to respond to disparities in visual health at the level of health centers is for eye and vision care to truly be a part of health care and be delivered by employed health center based optometrists. This model is the same as the delivery of primary care medical and dental health care, that is by health center employed physicians and dentists. The 1996 report²⁵ from the Institute of Medicine “Primary Care: America’s Health in a New Era”, made reference to optometrists as providing first-contact care and being an important member of the primary health care team. Optometry, as a primary care gatekeeper, is therefore an appropriate partner within the community health center care team. As the medical home model gains popularity with CHCs, optometry is a profession that makes sense to include in the care team, due to its unparalleled ability to deliver necessary primary eye and vision care services at a front line community level.

When direct employment is not possible, then the next model to develop is a formal referral relationship with local area optometrists. Optometrists could also consider partnering with a CHC to locate a satellite office within or nearby a CHC and develop formal contractual arrangements to delivery primary eye care services to patients registered at the health center. Optometrists are widely distributed across all geographic regions in the United States. This distribution may enable ease of access to optometric services and encourage opportunities for optometrists to develop formal collaborations and partnerships with CHCs. Thus, optometrists and health centers could work together using a variety of business and delivery models to address barriers of access to primary eye care services.

Because optometry is not a mandated service at a health center, there remain significant regulatory (policy) issues to address before there will be any substantive growth of on site eye care services at CHCs. While this textbook and this chapter have demonstrated the how optometry fits into the nation’s strategy to address public health concerns, optometry is yet to be mandated as a front line primary care profession within some programs of the federal government. Thus, current policy creates regulatory barriers for optometry’s inclusion into federal programs linked to the country’s health center program. A specific example is at the most basic level of definitions used by the Health Resources and Services Administration (HRSA) to explain primary care. HRSA does not include optometry in it its core definition of primary health care services. This policy (HRSA’s definition of primary care) would appear to be in direct conflict with other definitions of primary care, most notably the one advanced by the Institute of Medicine mentioned above.

One result of this policy (the definition of primary care) comes in the form of a financing barrier. It is a barrier because in order for on site optometry at CHCs to come on line, the governing board and management must find a mechanism to fund the service. The Section 330 grant program is designed to support primary health services within the existing regulatory framework of mandated services. With optometry designated as a non-mandated specialty

service, a health center must rely on alternative funding methods for the service. Funding sources might include a federal expansion grant, including applying for other federal grant support outside of Section 330, seeking funding at the state or local level, applying for a loan, issuing a bond, or even private fund raising.

There are other consequences of optometry's lack of inclusion in the core definition of primary care. Most notably is in the area of workforce development, including recruitment and retention of optometrist to work at health centers. If health centers want to attract and retain highly qualified optometrists for their communities, they will need to address issues of parity in workforce entitlements. While there are many satisfied optometrists employed at health centers, they are not given access to some entitlements that FQHC-based primary care physicians enjoy. A prime example is the federal government's National Health Service Corps (NHSC) scholarship and loan repayment program. This program enables physicians and other providers who work in federally designated underserved areas to enter into a tax free loan repayment program in exchange for working in a medically underserved area such as a FQHC. The lack of inclusion of optometry in NHSC is linked to HRSA's restricted definition of primary care and which professions are considered in that definition.

Until progress is made in federal policies relating to primary health care and how optometry is recognized within those directives, growth of optometric services within CHCs will be limited. Current policy requires that the decision to add optometry reside at the level of the health center governing board, in contrast to those medical and other services mandated and funded through Section 330 of the Health Center Program. Even after a board votes to add optometry, it is up to the health center's management team to seek a formal change in the scope of its services (as needed) and raise the funding for the addition of the optometry service. These policy and resulting financial barriers represent challenges for optometry to overcome before a significant impact can be made on the visual health status of community health center populations. Nevertheless, the personal testimony of enthusiastic and caring health center based optometrists bodes well for the profession. Optometry's leaders, in conjunction with legislative initiatives and changes in policy, will eventually overcome the barriers discussed in this chapter and become a vital core service that health center patients will come to rely on for their primary eye vision care needs.

Study questions:

1. Describe an ideal health center program in an underserved community without access to primary health services (without regard to the limitations imposed by current policies).
2. Why should optometry be a core service at a health center?
3. How do health centers respond to disparities in health status within their communities?
4. Describe the demographic characteristics of health center users.

5. What policy issues are preventing optometry from being considered as a core service within a health center?
6. Explain how a community's health status can be improved by including optometry in the mix of services at a CHC.

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