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National Association of Community Health Centers, Inc.

The Impact of Community Health Centers & Community-Affiliated Health Plans on Emergency Department Use

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Executive Summary

American reliance on the hospital emergency department (ED) continues to soar, even though many of these visits can be prevented with timely access to primary care. When someone has a regular medical or health care home, they have a better chance at good health, which in turns generates cost savings to hospitals and payers. With mounting concerns over rising health care costs, Medicaid, the public insurance program for low-income families, has increasingly been under the gun to produce cost savings. Rising rates of enrollment and expenditure growth, coupled with budget shortfalls, led every state and the District of Columbia to implement multiple strategies to control Medicaid spending over the last several years.

With fewer primary health care options at their disposal, many Americans are turning to EDs for non-urgent care or care that could have been avoided through timely use of primary care. ED visits are rising faster than population despite the fact that the actual number of EDs is declining. Medicaid beneficiaries and uninsured patients are much more likely to rely on the ED for their ambulatory care compared to the privately insured, while the number of physician office visits for Medicaid and uninsured patients is dropping. This report finds that:

- At least one-third of all ED visits are "avoidable", meaning, non-urgent or ambulatory care sensitive (ACS) and therefore treatable in primary care settings.
- Over $18 billion dollars are wasted annually for avoidable ED visits.
- One-third of hospitals report being on ambulance diversion sometime during the year.

Patients with a health care home are less likely to suffer a costly illness and go to the ED for care. Implementing programs that redirect Medicaid patients to appropriate primary care settings rather than to the ED for ACS visits may produce significant savings for Medicaid.

Members of the National Association of Community Health Centers (NACHC) and the Association of Community Affiliated Plans (ACAP) provide access to primary care and serve similar populations, typically Medicaid beneficiaries and other low-income populations. NACHC represents the national network of Community, Migrant, and Homeless Health Centers, and ACAP represents 30 safety net health plans across 15 states that primarily serve Medicaid and SCHIP populations. Together health centers and Medicaid plans are critical threads in the health care safety net, working jointly to widen access to quality health care for vulnerable populations, such as Medicaid beneficiaries and the uninsured.

Health centers and Medicaid health plans are ideal partners in this initiative because their mission and focus is to improve the access to care and the overall health of beneficiaries by providing care in the most efficient manner possible.

- Health centers could save Medicaid approximately $4 billion annually by reducing avoidable ED visits.
- Patients served by health centers have fewer preventable ED visits than those in underserved areas without a health center.
- The Medicaid health plan model improves care and reduces the ineffective use of resources.
- The Medicaid health plan model has demonstrated cost savings even in times of soaring Medicaid costs.

Several case studies highlighted in this report underscore formal ED reduction programs between health centers and hospitals or structured health plan initiatives targeting ED use can make a broad impact on the health care system as a whole. Collaboration between health centers, health plans, and hospitals will lead to a more cost effective and higher quality health care system. In order to cultivate the benefits of such programs, policy makers should:

1. Reinvest savings generated through reducing ED visits to the providers and plans bearing the cost of primary care.
2. Maintain and expand public insurance, given that having both insurance and a health care home most effectively improves outcomes and lowers costs.
3. Support health centers, safety net health plans, and other safety net providers in implementing health information technology to enable quality improvement efforts and ED reduction programs.

Introduction

Nationally, Americans are becoming increasingly reliant on one of the most costly sources of health care – the hospital emergency department (ED). The uninsured and Medicaid beneficiaries rely on the ED for more of their ambulatory care than the privately insured and Medicare beneficiaries, disproportionally affecting those EDs that already treat large numbers of uninsured and Medicaid patients. Yet a significant percent of these visits are preventable through timely access to primary care, and programs that create medical or health care homes for frequent users of the ED can improve health outcomes and generate savings to hospitals and payers. Medicaid especially is in need of new cost-savings models of care. Although state budgets are slowly crawling out of shortfalls driven by a weakened economy, half of all states expected budget shortfalls in 2006. Continued Medicaid enrollment and expenditure growth, coupled by budget shortfalls, led every state and the District of Columbia to implement multiple strategies to control Medicaid spending over the last several years.[1]

With the recent media and political focus on ED overcrowding, the National Association of Community Health Centers (NACHC) and Association of Community Affiliated Plans (ACAP) sought to highlight effective ways to reduce ED utilization. NACHC represents the national network of community, migrant, and homeless health centers, and ACAP represents 30 safety net health plans across 15 states that primarily serve Medicaid and SCHIP populations. Together health centers and Medicaid plans are an integral part of the health care safety net, as both work to provide access to quality health care for vulnerable populations, such as Medicaid beneficiaries and the uninsured. ACAP health plans oversee care for over 4 million low income beneficiaries while health centers provide primary health care and other services for nearly 16 million[2] patients. Because health centers and ACAP plans play similar roles in providing access to primary care and serve similar populations, including some of the same Medicaid patients, opportunities can be found in working together.

This issue brief details the ED overcrowding crisis, how access to patient-centered, regular, and consistent primary care (i.e., a "medical home" or "health care home") can ease ED overcrowding and generate savings for payers, and how health centers and ACAP plans stand ready to offer solutions to this crisis. This brief also provides examples of programs that health centers and health plans have established in order to reduce inappropriate and costly ED visits through providing access to primary care for Medicaid patients and the uninsured. This brief focuses mostly on formal diversion programs – that is, those programs where a defined relationship between a health center and a hospital or a structured health plan initiative targeting ED use exist. However, some of the case studies also highlight more informal diversion programs that promote broader system change (e.g., open access at primary care sites) as a vehicle for reducing ED use. This brief also includes several health center and ACAP plan case studies so that others may put similar programs into practice.

Easing Reliance on the Emergency Department

Growing Demand for the ED

Demand for ED visits is on the rise and EDs are becoming overcrowded largely due to reduced inpatient capacity and impaired patient flow. According to the National Center for Health Statistics, there were 110.2 million visits to hospital EDs in 2004 – an increase of 18% over the last 10 years. This rise in ED visits occurred despite the fact that the number of hospital EDs in the US dropped by 12.4% over the same time.[3] The Institute of Medicine reports that American ED visits grew more than twice as fast as population between 1993 and 2003, and that 60% of hospitals operated at or over capacity in 2001.[4]

Several factors likely contribute to the rise in ED use, such as the increase in elderly and chronically ill Americans, overworked or lack of primary care physicians, the lack of primary care beyond "normal" business hours, and patient preferences. Longer waiting times for physician appointments and higher numbers of physician visits relative to the number of community physicians actually increased ED use, especially among the poor. High ED use for non-urgent problems in some communities may also be driven by preference and habit. In

fact, people in high use communities receive a larger proportion of their outpatient care at the ED compared to those in low use communities, regardless of insurance, income, and race/ethnicity.[5]

Privately insured Americans are the major driver in increased visits to the ED, accounting for more than half the increase in visits between 1996-1997 and 2000-2001. Although the number of visits made by Medicaid patients did not change, these patients made fewer visits to physician offices over this time. In fact, 17.5% of all ambulatory care visits made by Medicaid beneficiaries in 2000-2001 were in the ED, compared to only 7.6% of all ambulatory care visits for the privately insured. The number of ED visits for the uninsured rose by about 10% between 1996-1997 and 2000-2001, and the number of uninsured physician office visits declined 37% during this period. By 2000-2001, the uninsured went to the ED for 25% of all their ambulatory care.[6] Medicaid beneficiaries actually have twice the ED visit rates as the uninsured, and four times the rate of the privately insured.[7] Moreover, communities with higher levels of ED use actually have fewer numbers of uninsured persons, Hispanics, and non-citizens compared to communities with low ED use.[8] Although the uninsured may not be driving the increase in ED use, those who rely on the ED may do so because they lack a primary care provider. The uninsured often put off seeking care because of cost, thereby only turning to the ED when their conditions have seriously worsened. ED patients have also become older and sicker over the last dozen years, requiring more resources and staff time.[9]

The High Cost of Avoidable ED Visits

At least one-third of all ED visits are "avoidable" in that they were non-urgent or ambulatory care sensitive (ACS) and therefore treatable in primary care settings.[10] Some researchers estimate that the percent of visits considered avoidable is actually much higher. Billings et al found that roughly 75% of all visits to New York City EDs were avoidable,[11] previous studies from the National Center for Health Statistics found that as many as 55% of ED visits were non-urgent,[12] and two studies in Utah found that 44% of all visits were primary care sensitive and between 40 and 60% of all ED visits for children were non-urgent.[13] Medicaid beneficiaries and the uninsured also account for more *avoidable* ED visits. EDs serving higher proportions of patients that are Medicaid eligible or uninsured have 25% more non-urgent cases presenting, 10% more emergent conditions presenting that are primary care treatable, and fewer injury and unavoidable emergent conditions presenting compared to other EDs.[14] In Utah, Medicaid enrollees in 2001 accounted for 56.9% of all ambulatory care sensitive ED visits among all payers.[15]

The ED is a more costly form of care than primary care settings. In fact, ED charges for minor, non-urgent problems may be two to five times higher than charges for a typical private physician office visit.[16] Often, non-urgent ED visits and generally those that are ambulatory care sensitive (ACS) could be more appropriately treated in a primary care setting, where care is more affordable, timely, and appropriate. According to a recent NACHC estimate detailed in Appendix A, over $18 billion dollars are wasted annually for ED visits that are non-urgent or primary care treatable and could have been treated in a health center.[17] This figure takes into account the total number of ED visits by state and assumes that 35% of all ED visits are avoidable – a conservative estimate given the literature cited above. It also considers average expenditure for an emergency room visit by region and average cost health center medical visit. Thus it estimates the *excess* health care expenditures spent nationally that could have been prevented. **Appendix A** displays the amount each state spends in avoidable ED visits annually. Four states, including **California**, **Florida**, **New York**, and **Texas** all spend over a billion dollars annually. These states and three others (**Illinois**, **Ohio**, and **Washington**) make up 40% of the $18 billion in annual wasted expenditures nationally.

Overcrowding and increasing demand for the ED not only drive increasing health care expenditures, they also affect quality of care. Overcrowded EDs experiencing high rates of ACS and preventable visits are forced to spread thin their resources, threatening health care quality.[18] At least a third of all hospitals reported being on ambulance diversion sometime during the year, generally because of lack of available inpatient beds and crowded EDs. In addition, 44.9% report experiencing ED crowding sometime between 2003 and 2004.[19] ED wait times are rising, and are much higher than those in primary care settings such as health centers. This increase in wait time also lowers patient perceptions of ED care quality.[20]

Health Care Homes As a Solution to the ED Crisis and Growing Medicaid Expenditures

Having a health care home – a health care practice where a patient receives the majority of his or her health care in a regular, continuous, and patient-centered manner – improves health outcomes and controls the cost of care. Patients with a health care home are less likely to have a costlier illness at a later date[21] and go to the emergency room for health care.[22] Having a health care home is also associated with improved access to and use of primary care, better management of chronic diseases, more cancer screenings for women, and even fewer lawsuits against emergency rooms.[23] Studies have consistently shown that having a regular provider is a better predictor of seeking care than having insurance alone, and having both make the greatest impact on health care outcomes.[24] Accordingly, expanding access to health care homes is best done in conjunction with expanding access to insurance. The consequences of not having a regular provider impact the surrounding community in a variety of ways: elevated infant and childhood illness and mortality rates, over-utilization of emergency rooms and other inappropriate providers for primary care services, and hospitalization rates for preventable conditions that are significantly higher than the national average. Furthermore, access to primary care may contribute to removing the severe adverse impact of income inequalities on health. Despite these advantages, over 50 million Americans do not have access to a usual source of care because of a lack of or inequitable distribution of primary care physicians.[25]

Implementing programs that redirect Medicaid patients to appropriate primary care settings rather than to the ED for primary care sensitive visits may produce significant savings for Medicaid. More providers must be available to those who rely on the ED for care. A drop in Medicaid participation among physicians increases the probability of ED use among Medicaid/SCHIP adults. Moreover, reductions in health center capacity resulting from Medicaid/SCHIP revenue loss increase slightly the probability of ED visits for Medicaid/SCHIP adults and children. Creating programs that direct Medicaid patients to primary care sources would create a more efficient health care delivery system, and would produce greater cost savings than Medicaid enrollment reductions.[26]

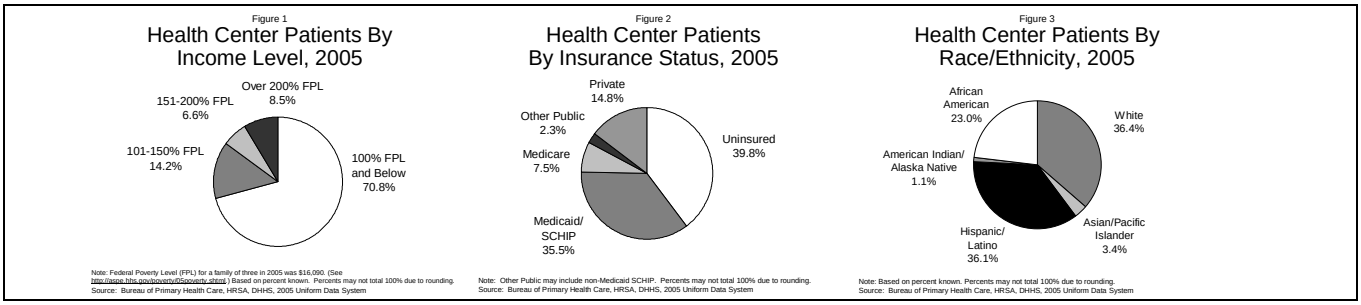
In passing the Deficit Reduction Act (DRA) of 2005, Congress recognized the cost savings that health care homes can generate for Medicaid, particularly in their ability to reduce inappropriate and avoidable ED visits. The DRA requires the Secretary of Health and Human Services to create an Emergency Room Demonstration Program for the establishment of "alternate non-emergency service providers…or networks of such providers" and includes a "health care clinic" and a "community health center" among the various providers that meet that definition. To fund this effort, Congress provided for up to $50 million in grant funds for a 4 year period, and specified that HHS must provide preference to States that establish or provide for alternate non-emergency services providers that (1) serve rural or undeserved areas in which recipients may not have regular access to providers of primary care services or (2) to providers that are in partnership with local community hospitals.[27] At the time of writing this issue brief, final guidelines for this program had not been released by the Centers for Medicaid and Medicare Services. The DRA indicates that only state Medicaid agencies will be allowed to submit grant applications. However, it appears as there will be substantial flexibility for participation by other types of entities. Since the DRA language specifies that "networks of providers" may be eligible to receive part of the grant funds, NACHC and ACAP will also monitor the guidelines and distribute them to Primary Care Associations, health centers, and ACAP members when they are published.

The Role of Health Centers

Federally-Qualified Health Centers are non-profit, community-based health care providers that serve nearly 16 million people annually through over 5000 service delivery sites across the nation. Health centers successfully overcome barriers to care because they are located in high-need areas, are open to all residents, offer services that facilitate access to care such as outreach and transportation, and tailor their services to their communities' unique cultural and health needs. Through high quality, cost effective care, health centers reduce health disparities, improve birth outcomes, effectively manage chronic diseases, and stimulate economic growth

in the community.[28] A commitment to patient involvement in healthcare delivery through community boards remains a key aspect of the health center model.

Health center patients are some of the nation's most vulnerable individuals; 92% of health center patients are low income and 71% of health center patients have family incomes at or below poverty ($16,090 annual income for a family of three in 2005), as displayed in Figure 1. As demonstrated in Figure 2, 40% of health center patients are uninsured and another 36% depend on Medicaid. In addition, nearly two-thirds of health center patients are racial and ethnic minorities, shown in Figure 3. Roughly half of health center patients live in economically depressed inner city communities and the other half reside in rural areas.



Numerous studies document that health centers reduce ED visits. Patients in underserved areas served by these centers had 5.8 fewer preventable hospitalizations per 1,000 people over three years than those in underserved areas not served by a health center.[29] Greater health center capacity is associated with declines in ED use,[30] and uninsured people living within close proximity to health center are less likely to have an unmet medical need, less likely to have postponed or delayed seeking needed care, more likely to have had a general medical visit, significantly less likely to have had an emergency room visit, and less likely to have a hospital stay compared to other uninsured persons.[31] Further increasing access to health centers for more patients can significantly reduce current rates of non-urgent and avoidable ED use, and have the largest impact on medically underserved populations. These medically vulnerable patients relying on EDs are exactly who health centers target for continuous and effective primary care.

Health centers produce significant savings to Medicaid through reduced ED visits, as well as fewer hospitalizations and specialty care visits, generally saving as much as 30% per Medicaid patient when compared to Medicaid patients treated elsewhere. In fact, regular users of health centers in New York were associated with significantly fewer ED visits – about 50% less than non-users. [32] One study using Medicaid claims data on ambulatory care sensitive conditions (ACSC) from five states found that health center Medicaid patients were significantly less likely to visit EDs and were more likely to have at least one primary care office visit when compared to Medicaid beneficiaries treated elsewhere. These additional visits did not offset possible savings from ACSC avoidable events.[33] A more recent study analyzing Medicaid claims data in four states concluded that Medicaid beneficiaries relying on health centers for usual care are 19% less likely to use the ED for ACSCs than Medicaid beneficiaries using outpatient and office-based physicians for usual care.[34] These studies also serve as a measure of quality, as ACSCs are avoidable through timely primary care.

Although health centers have been shown to reduce ED visits, the fact that they currently serve 1 in 9 Medicaid beneficiaries implies that there is potential to generate more savings to Medicaid. In an issue brief from the National Health Policy Forum on overcrowded emergency departments, one avenue for reducing demand identifies health centers for their ability to expand primary care access.[35] Health centers not only reduce the crowds at EDs by serving as an alternative source of care, but they also save money for the healthcare system at large by providing a cost effective health care home for many uninsured and publicly insured individuals.[36] Considering that approximately $18.4 billion is wasted annually on ED visits that should have been seen in primary care settings, and given that Medicaid patients make up 22% of all ED visits,[37] health centers could save Medicaid approximately $4 billion annually by providing primary care services to Medicaid beneficiaries at a health center instead of in an ED. Health center success is partly attributed to their enabling

services, such as case management, transportation, translation/interpretation services, and health education, many of which are unavailable from private physician offices. By meeting a broad base of patient needs in a consistent and easily-accessible manner, health centers provide care to underserved patients and those with complex, chronic conditions, deterring them from costlier avenues of care.

The Role of Community-Affiliated Health Plans

Community-affiliated health plans are important providers of health care homes for Medicaid beneficiaries. The 30 members of ACAP are mission-driven organizations that partner with providers, beneficiaries, and state Medicaid agencies, have strong relationships with other community health care providers (such as health centers) and work with community-based providers to improve the health of the populations they serve. They act as navigators and coordinators for their enrollees, improving access to needed care. Low income populations that are either uninsured or in Medicaid fee-for-service often find access to specialty care difficult. Health plans are able to contract with specialist providers and facilitate better access for Medicaid enrollees.[38] As such, health plans can play a key role in improving access to primary and specialty care for their Medicaid patients in ways that even safety net providers find difficult. In fact, the availability of health plans reduces avoidable ED visits, illustrating the potential of health plans to direct their Medicaid clients to the appropriate provider for their health care needs.[39]

ACAP health plans serve their local communities, build long-term partnerships with their state agencies, and bring the cost-saving principles of managed care to public health insurance programs. Many of the health plans in ACAP were originally started by local safety net providers, including health centers and public hospitals. Because of their ties to the community and their not-for-profit status, the plans typically reinvest their operating margins in programs that improve access to care at the local level, create efficiencies in the delivery of health services and, increasingly, seek to reduce unnecessary use of EDs.

While health plans have done much to improve access to primary care for Medicaid enrollees, use of the ED for primary care continues to be higher among low income Medicaid populations than in commercial health plans.[40] One reason is that Medicaid beneficiaries often have trouble accessing specialty care, and this can contribute to higher ED rates in the Medicaid population. Many specialists do not accept Medicaid patients – a particularly problematic circumstance given that Medicaid beneficiaries disproportionately suffer from chronic illnesses and often require greater specialty care.[41] Some safety net providers report that Medicaid beneficiaries seek ED services because emergency departments offer relatively easier access to specialists. ACAP health plans have tried to address this problem by cultivating relationships with specialty providers and establishing networks of specialists available to health plan members. In a 2004 study of its members, ACAP found that the health plans had created partnerships with specialty providers by improving payment practices and communication as well as simplifying administrative burdens.[42]

Community affiliated health plans can play an important role in both improving care and reducing the ineffective use of resources. The Lewin Group's 2004 study found that the Medicaid health plan model typically yielded cost savings in the range of 2 to 19% – a particularly noteworthy feat during a time of soaring Medicaid costs.[43] A separate study confirmed the cost effectiveness of not-for-profit plans, finding that not-for-profit plans spend more of each premium dollar on medical expenses than their for-profit counterparts and spend less on administrative expenses.[44]

Not-for-profit health plans have also had historically better outcomes in key measures of quality performance. A study from Harvard Medical School compared a total of 329 not-for-profit versus investor-owned health plans, and found that investor-owned plans had lower rates for all 14 quality of care indicators. For patients discharged from the hospital after a myocardial infarction, 70.6% of not-for-profit patients filled a prescription for beta blockers vs. only 59.2% of patients in investor-owned HMOs. Not-for-profits also had higher scores on all routine preventative services in the study. For example, the immunization completion rate for 2-year olds in not-for-profit plans averaged 72.3% vs. 63.9% for investor-owned plans.[45]

In addition to their not-for-profit status and community affiliation, a recent paper published by ACAP highlights key areas in which ACAP plans have partnered with safety net providers such as community health centers to improve care for low-income populations.[46] Typically, these partnerships have focused on ACAP plans providing support in four key areas: spending on health care services provided by safety net providers, additional financial and in-kind investments to safety net providers, a commitment to the uninsured, and plan leadership as conveners of safety net stakeholders focused on addressing the health care crises of vulnerable populations.

A 2004 survey of ACAP members found that a median of 45% of their beneficiaries use health center-based providers.[47] Many Medicaid health plans already coordinate with safety net providers for initiatives aimed at managing chronic diseases, sharing financial data, and jointly developing outcome measures. The same cooperation can be extended to ED diversion efforts, such as in the Monroe Plan case study highlighted below. ACAP health plans are ideal partners in these initiatives because, like health centers and other safety net providers, they are motivated to improve the access to care and the overall health of beneficiaries by providing care in the most efficient manner possible.

Case Studies: Examples of Health Center and Plan Initiatives to Reduce Avoidable ED Visits

The following case studies examine three health centers and three health plans that have worked to redirect inappropriate ED visits to primary care settings. The descriptions are based on July 2006 interviews of health center and health plan chief executives, medical directors, and quality management staff. The health centers described a range of strategies for reducing ED use including, but not limited to, case management, triage, hospital/health center partnerships, and alternative sites for patients to seek care. ACAP health plans, meanwhile, described programs that include working closely with local hospitals and health centers, creating incentives for doctors to stay open on weekends and in the evening, educating members about self-care and creating nurse triage programs. While every program reflects the local priorities of the community served, all of the ED reduction efforts share the goal of improving access to primary and preventive care. Furthermore, all offer strategies for alleviating overcrowded emergency departments and improving the quality of care delivered. Nonetheless, it is important to note that each community is different, and so what may work for one case study may not be feasible for the community and patients of health centers and plans elsewhere.

What follows is only a handful of health center and health plan experiences. Other health centers are actively engaged in formal hospital or regional partnerships to mitigate inappropriate ED use. These activities include providing case management activities as part of Healthy Communities Access Program grants, creating care coordination programs for frequent users of ED services, renting space within a hospital to deliver primary care, implementing nurse triage call lines, and utilizing electronic referral systems to direct patients from the ED to health centers and make follow up appointments. Health centers also reduce ED visits by their very design – providing culturally appropriate primary care to populations who would otherwise go without, using "open access scheduling" to see patients that day and reduce missed scheduled appointments, staying open evenings and weekends, and offering health education, transportation, and outreach. However, formal partnerships and programs are necessary in order to ease ED overcrowding and provide substantial savings to payers, patients, and communities. Additional ways that health plans try to improve primary care access and reduce ED use include: providing transportation services to decrease missed appointments, identifying "frequent users" of EDs and offering targeted case management services, and development of disease management programs for high ED use diagnoses, such as asthma.

Reaching the Rural
Minnie Hamilton Health Care Center, West Virginia

Minnie Hamilton Health Care Center (MHHCC)[48] is located in rural Calhoun County, West Virginia, an area with the state's highest unemployment rate and where more than 32% of the population is living at or below the federal poverty limit. MHHCC is unique in that the health center took over Calhoun General Hospital (CGH) in 1996 and integrated primary, emergency, hospital, and outpatient care in their service area. The start-up funding to merge the hospital with MHHCC came from three main sources: patient services, cash flow, and a one-time Housing and Urban Development (HUD) infrastructure grant for $500,000. The hospital today is a 43-bed facility and has five ED rooms, two of which are cardiac/trauma rooms. This unique model of combining hospital and health center services aims to expand services while assuring continuity of care for those in the community.

Since acquiring the hospital, the health center has experienced its largest patient growth since its establishment in 1983. Patient encounters increased dramatically at the health center, rising from an average of 350 per month in 1996 to an average of 4950 per month in 2006. The health center reports that the increase in health center patients was driven primarily by extended primary care hours as the health center operates between 8am and 11pm.

While meeting the community's needs for primary health care, hospital, and emergency services, MHHCC looked to decrease costs and deliver more effective care in the ED. In this isolated mountainous region of West Virginia there is an overall lack of primary care providers. This lack of access to care means that people come from miles around hoping to find a provider to address their health care needs. This is especially true for emergency visits since the ED is the only place in the region for care open 24 hours a day, seven days a week. In this community only four out of every 40 ED walk-ins are "true trauma" cases, so the health center decided to take action to reduce those avoidable ED visits.

After acquiring the hospital, the health center targeted avoidable ED visits by triaging patients in the ED and sending them to the health center if and when appropriate. Patients are triaged by a nurse who assesses their physical and emotional symptoms to determine if they are stable enough to be seen during regular clinic hours. When patients present to the ED, about 52% are deemed stable by the triage nurse and are classified as clinic patients to be seen during regular health center business hours (8am-11pm); otherwise, they are seen in the ED department. MHHCC hopes to decrease avoidable visits to the ED, provide people with a health care home, and increase continuity of primary and preventive care services to fully realize potential cost savings and improve quality of care.

MHHCC reports that the triage program has been a "modest success," resulting in a 15% decrease in ED-classified patients over the past four years. The health center attributes this success to the triage system and the advantages of seeing patients in the primary care wing of the health center over the ED. The drop in avoidable, ambulatory care sensitive ED visits actually represents a shift of patients to the health center primary care services. While the health center has saved money on patient supplies, the increased staff required for nurse triage has offset those savings. Thus they have not documented any losses or cost savings, but the program strives to prevent further cost increases in light of national trends of increasing ED costs. MHHCC has seen improvements in access to care and in utilization of the health center as a health care home.

Striving for Solutions
North Hudson Community Action Corporation, New Jersey

The North Hudson Community Action Corporation (NHCAC),[49] located in Northern Hudson County, New Jersey, has been a federally-qualified health center (FQHC) since 1994 and provides care for those in the greater Northern New Jersey area. The health center has seven sites which offer an array of services including adult medicine, pediatrics, dental, prenatal and obstetrics and gynecology, family planning, mental health, and substance abuse treatment. The health center serves a diverse patient base with 86% Hispanic, 10% White, and

4% other including Middle Eastern Americans and Asian Americans. The patient insurance base of NHCAC is approximately 40% uninsured, 55% Medicaid, and 5% commercial insurance or Medicare.

NHCAC and Palisades Medical Center, a nearby non-profit hospital, have a history of working in partnership on many community projects. NHCAC earned FQHC status following an $180,000 grant to evaluate whether the area was in high need of medical care, and Palisades Medical Center aided in the grant writing process. In 1995, the health center and Palisades Medical Center teamed up again in an attempt to reduce ED use. One of their first efforts included reaching out to ED patients by leaving business cards at the front desk for follow-up appointments. This proved ineffective in luring patients, and that attempt soon ended.

In a second attempt the following year, NHCAC and Palisades Medical Center address the health care needs of the underinsured and uninsured by focusing on frequent users of the ED. The hospital and the health center formally contract annually for health center services. The need for this program is clear – 47% of all New Jersey ED visits not admitted to the hospital are potentially avoidable.[50]

All ED patients are first triaged and stabilized by a triage nurse, in accordance with the requirements of the Emergency Medical Treatment and Labor Act (EMTALA).[51] Uninsured and Medicaid patients are then seen by the on-call health center doctor if medically necessary, and billed as health center patients. Health center doctors provide care within the hospital through a 24 hours a day, 7 days a week on-call service for Pediatrics and OB/GYN; one physician is on the floor in each department at a time. The hospital pays the health center monthly to contract these health center physicians. The health center in turn contracts five obstetricians totaling $750,000, and 5-6 pediatricians $500,000 to provide these services. Privately insured patients are also seen by the health center doctor if a patient's private physician is unavailable, and the health center does not bill them as agreed to in the contact with the hospital**.** Instead, the health center is paid for on call coverage.

The program aims to improve and establish continuity of care among patients who would normally rely on the ED. For example, many of the patients who come to the health center for prenatal care can then have their baby delivered at the hospital with the same physician. Furthermore, the health center pediatrician makes rounds in the nursery; thus, the same pediatrician later sees the child for primary care visits at the health center.

In addition, this program seeks to improve timely follow-up care for those seen in the ED; the health center established relationships with two local EDs (Christ Hospital and Palisades Medical Center) to provide patient follow-up appointments at the health center. NHCAC reserves approximately five appointment slots a day from 1-3 pm for follow-up ED visits at their health center sites, and when necessary, efforts are made to schedule patients for an appointment two to three days after their ED visit. NHCAC is planning a computer linkage with Christ Hospital so that appointments can be scheduled directly. The health center expects this project to be running soon. Although Palisades' staff relies on phone scheduling at the moment, a planned computer system will also eventually link the hospital and health center.

As a result of their relationship, Palisades Medical Center and NHCAC both reported that ED overcrowding decreased and receipt of continuous primary care improved. The decreased waiting time in the ED is a specific example of success, attributed to health care available six days a week with evening hours until 7 pm.

The health center identified several challenges, including patient education about their services, to improving the effectiveness of the program and to ensure its continued success. It is especially challenging for uninsured patients to see specialists at the hospital as these physicians do not receive adequate reimbursement when treating uninsured patients. While hospital charity care pays for uninsured visits to the ED, the uninsured visits to hospital specialists are not covered by charity care. The lack of payment for the uninsured who need specialty care makes accessing these services difficult, and NHCAC estimates that a significant proportion of the uninsured need specialty services. The health center has not yet overcome the challenge of access to specialty care for uninsured patients, but they are working to find a model that best fits their patients' needs.

To address these issues, some NHCAC sites are open until 8pm, and the health center hopes that other sites will soon be open that late in order to provide primary care when their patients need it. NHCAC and other New Jersey health centers are also striving to bridge the specialty care gap, access the funds for other services or tests necessary for proper diagnoses, and generate additional revenue for health center programs.

Creativity and Consortium
The County of Santa Cruz Health Services Agency, California

The County of Santa Cruz Health Services Agency, a public health department also funded as a Federally-Qualified Health Center through its Health Care for the Homeless Program, is home base for one of six projects funded through the "Frequent Users of Health Services Initiative."[52] Jointly sponsored by The California Endowment and the California HealthCare Foundation, this Initiative is a 5-year, $10 million project to address ED overcrowding by frequent users. During its two funding cycles (2003 and 2004), the Initiative successfully focused on promoting access to health care homes and the coordination of medical and psychosocial services for frequent user patients with multiple, complex needs.

"Frequent users," as defined by the Initiative and individually by each of the projects, are patients repeatedly cycling through the ED, typically anywhere from four to as many as thirty or more visits per year. While making up a small portion of all those who use EDs, frequent users have a significant impact on health costs. Among the patients served by this program, most are uninsured or underinsured, and often affected by multiple, co-occurring disorders, including untreated chronic diseases, mental health disorders, substance abuse disorders and homelessness. These patients typically need individualized assistance and intensive support to effectively utilize Medicaid and other resources.

The Initiative funded six programs in 2004 through a competitive grant process. Each program is autonomous in scope and process, but the programs generally focus on a similar population of ED frequent users. The individual programs try to break down barriers to access as well as coordinate care across providers and systems. Multi-disciplinary services are provided directly or by linking patients to other providers or services, including benefits advocacy, supportive housing, mental health services and drug and alcohol treatment programs. Coordination across systems allows case managers to track their patients' use of the ED and more adequately meet their needs.

Identifying causes of frequent ED use provided groundwork for designing the programs. Some of these causes include complex medical and non-medical delivery systems, lack of integrated services, categorical funding streams, limited access to both primary and specialty services, and lack of care continuity and service coordination following hospital discharge. Obstacles to healthcare for low income patients who face chronic health conditions are compounded by psychosocial risk factors and the need for a broad array of services.

The Santa Cruz County Health Services Agency operates Project Connect, the Initiative's first funded implementation project.[53] Project Connect specifically targets the frequent users of the county's two emergency departments – one at Dominican Hospital and the other at Watsonville Community Hospital – and provides a broad range of community-based health and related services via case management. The program employs a modified version of the Assertive Community Treatment (ACT) case management model. This comprehensive case management model has been found to be particularly useful for mental health and criminal justice patients. The National Institute of Justice describes the ACT Case Management model as "delivering services aggressively to the client, rather than passively offering services in a centralized office setting [and] may require the case manager to seek out the client in his or her home, job or community for meetings and counseling."[54] Patients are assigned to a lead case manager/social worker but receive support and services from multiple members of the interdisciplinary team, which includes a public health nurse and a nurse practitioner. Patients also benefit from chronic disease management, consistent preventive care, and access to social services integrated with medical care. For example, mental health, substance abuse, and housing issues are addressed in addition to the provision of care for medical conditions such as diabetes.

Supporting frequent ED users – through the establishment of a primary care home and a good relationship with a primary care provider – is an essential part of the project. Moreover, Project Connect prioritizes providing frequent ED users who are homeless access to affordable housing with integrated support services. In fact, Project Connect has helped develop two local, newly funded HUD housing programs for this population since the project was initiated. Furthermore, the case managers are individuals with cultural and linguistic sensitivity, and Health Care for the Homeless program health outreach workers collaborate with the project.

Each of the six programs within the larger Initiative provides data for an Initiative-wide evaluation effort and some also collect data of their own. Preliminary data for Project Connect demonstrate a reduction in ED visits among frequent users at both partnering hospitals. As of March 2006, Project Connect was tracking changes in utilization among 78 adults who were referred by one or both of the hospitals, enrolled in the project with a minimum of 5 ED visits (with a range of 5-63) in the most recent 12-month period, and had one or more of the following co-occurring health issues: a mental health disorder, a substance abuse disorder, an unmanaged chronic illness and/or homelessness. In the year prior to enrollment these 78 patients were responsible for a total of 785 visits to the ED. Project Connect recorded a 51% reduction in ED visits for the group in the 12 months following enrollment in the project. The number of hospital inpatient days and ambulance transports for these patients also decreased 50% and 47%, respectively.[55] The Project calculated an annual cost avoidance of $803,946 as a result of a combined reduction in ED visits, hospital inpatient days and ambulance transports for the first 78 individuals enrolled in the project. The project has now grown to include 106 individuals.

The five year Initiative program ends in 2007. Each of the individual programs, including Project Connect, is identifying and implementing sustainability strategies to ensure the continuation of effective strategies and programs. Most plan to pursue a combination of public and private funding, other grants, and the potential to generate reimbursement revenue for care and case management services provided to the population. The long-term goals of the Initiative include the collection of valuable data in order to bring about policy changes and to expand the national effort of providing quality care for vulnerable populations.

CareSource Ohio
CareSource Management Group – Ohio and Michigan

CareSource is a nonprofit Medicaid managed health care plan serving Medicaid consumers in Ohio for more than 17 years. The company provides services through a contract with the Ohio Department of Job and Family Services. The majority of CareSource's more than 520,000 members are women and young children.

Like many Medicaid health plans, CareSource has experienced rising Emergency Department (ED) utilization. This increase, according to the health plan's data, coincided with a decrease in visits to primary care physicians. Data also showed many members were going to EDs at times when primary care offices are not open, such as on weekends or at night – often for non-urgent diagnoses. To assist members in appropriate care decisions, CareSource piloted an Emergency Department Diversion (EDD) Program that focused on educating members on proper usage of ED visits, urgent care visits and Primary Care Provider visits.

In 2004, CareSource set up a collaborative partnership with Miami Valley Hospital in Dayton, Ohio, The hospital agreed to provide patients' medical records to CareSource within 24 hours after a visit, enabling CareSource nurses to follow up with the patients to ensure they fill their prescriptions, enroll in relevant disease management programs and arrange follow-up doctor appointments.

In addition to this partnership, CareSource expanded its Case Management and Outreach program – care managers who are responsible for members' care coordination, discharge planning and patient education. CareSource EDD screeners place next-day phone calls to members who frequently visit Miami Valley Hospital's emergency room – both for urgent and non-urgent reasons. The EDD screeners contact members who go to the emergency room for non-urgent reasons to inform them of the health plan's 24-hour nurse triage line and how to reach their primary care physician. For those members who utilized emergency rooms other

than Miami Valley's, EDD screeners attempt to reach the members at home if the member has been to the ED two or more times over a six month period. CareSource's case management department works in conjunction with provider relations staff to educate providers who have a large number of members who are identified as frequent emergency department utilizers.

The company also increased its focus on providing 24-hour access to a nurse through CareSource 24, its 24-hour nurse triage line. CareSource 24 was implemented in August 2002 to bring this competency in-house to better serve the unique needs of CareSource members. CareSource staff was trained not only to triage and direct members to the appropriate level of care, but also to assist them in fully utilizing their benefits. In addition to educating members about their benefits, CareSource staff helps coordinate their care and assists them in navigating the health care system. A study was done to compare the level of care recommended by the external vendor that CareSource used and the level of care recommended by the CareSource 24 staff. Because the in-house triage staff was more familiar with available resources and had direct connections to other departments within the company, members were directed to an emergency room less often than when they had called the external vendor. This demonstrated a positive link between CareSource 24 and a reduction in appropriate emergency room use.

Another measurable result is the number of members who sought a less-intensive level of care after receiving assessment and education from a nurse. Ongoing comparison studies illustrate the benefits of reducing unnecessary emergency room visits and medical costs. The study compares members who were planning an ER visit that were directed to a more appropriate level of care by the nurse. Those members who were successfully diverted to less intense level of services are determined through claims comparison. In the first two quarters of 2006, the nurse triage line diverted 68 percent (4,751) of 6,990 callers planning to visit the emergency room to a more appropriate level of care. The result -- $992,739 in emergency room cost savings.

Outcomes of the project include:

- Real time notification of ED visits
- Identification of legitimate ED visits
- Increased coordination of care
- Immediate identification of members in need of case management services
- More detailed information regarding reasons for ED visits
- Increased knowledge of CareSource benefits for members
- Increased physician communication and involvement in member care
- Identification of potential new ED Diversion Program members

CareSource is examining additional ways to combat ED overuse, such as:

- Creating incentives for primary care doctors to keep their offices open later during the week and on weekends, as well as creating a bonus incentive for doctors whose patient ED usage declines.

- Implementing physician and patient profiles allowing doctors to know how they compare to their peers in pharmaceutical and ED usage. Patient profiles would document whether patients fill their prescriptions and would then be made available to their primary care providers.

The EDD pilot project began as a partnership with hospitals to identify members who use the emergency department for non-emergent health issues and channel them to more appropriate settings. The pilot project has allowed CareSource staff to obtain more detailed information and to identify legitimate ED visits. For members who need further assistance, individual care management plans are formulated, ensuring continuity of care and increased member satisfaction. CareSource's goal is to encourage our members to use their primary care physicians as their "medical home".

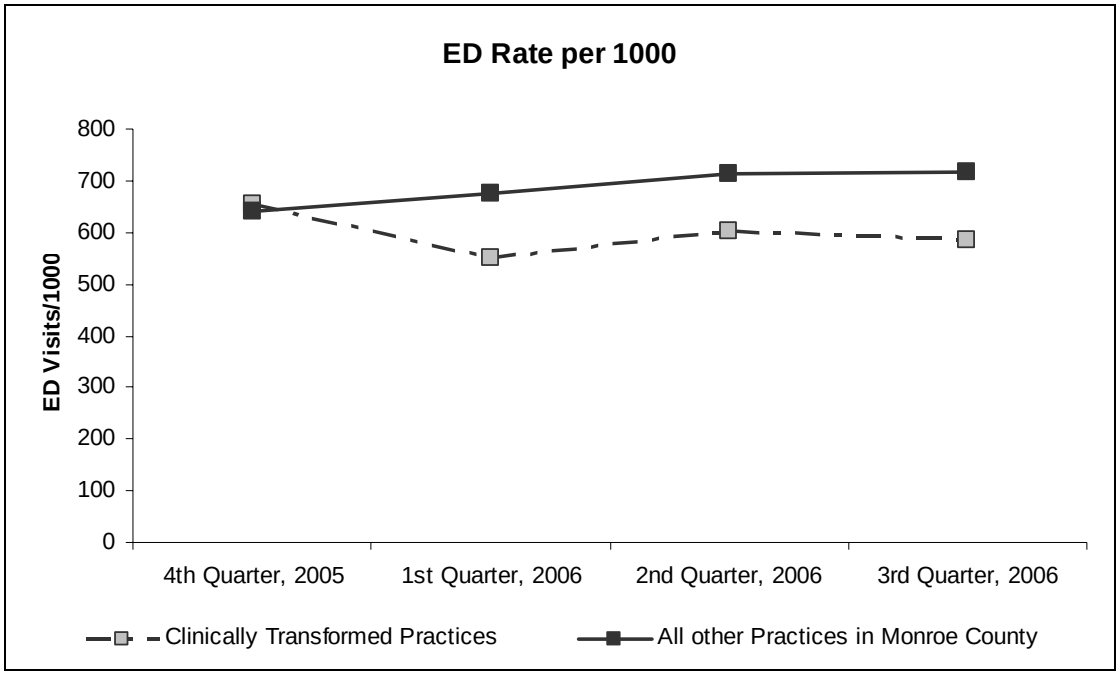
Monroe Plan for Medical Care- Rochester, New York

Monroe Plan for Medical Care serves 88,000 Medicaid and SCHIP beneficiaries in the Greater Rochester area of upstate New York. In 2003, Monroe worked with other community entities to create the Re-Weaving the Safety Net program, which links poor Rochester residents with needed health care and social support services. As part of this program, they launched the Clinical Transformation Project, which uses concepts developed by the Institute for Health Care Improvement to redesign patient care.[56] A key component of IHI's approach is the use of collaboratives, which bring together different provider groups all interested in pursuing the same clinical goal and ask them to conduct individual pilot projects to improve outcomes at their specific provider sites, and then meet periodically to share ideas, discuss common barriers, and brainstorm solutions.

Using a modified "collaborative" model, Monroe provides practice support to 13 different practice sites, the bulk of which are either health centers or health center based physician practices. Specifically, Monroe has worked with these practices to provide "open access" so patients can receive same-day treatment, even for non-acute visits. "Open access" refers to the ability of a patient to call and schedule an appointment on the same day they call. It requires most practices to redesign their ability to meet their patient's demand for same day appointments. Open access often results in a significant decrease in "no show" appointments - because patients call when they have a need, means, and support (child care /transportation) to make it to an appointment.

Monroe considers their program a modified collaborative model because the health plan devotes dedicated staff time to manage the collaborative and health plan staff generally provide more support to the practice sites than do typical IHI collaborative models. Monroe plan staff attend weekly meetings of the practice site teams as well as the monthly collaborative meetings. Monroe has found providers that primarily serve safety net populations may have resource constraints and/or institutional barriers that are difficult to overcome without a champion at the health plan level that can provide support, encouragement and facilitation.

The practices that have converted to "open access" have seen a significant decrease in ED use among their patients. While the practices that are part of this collaborative had similar ED use to the rest of Monroe's provider network when the open access collaborative first started in the 4th quarter of 2005, they have yielded significant decreases in ED use/1000 while the rest of Monroe's network has seen an increase. Monroe Plan is working with 3 additional practices to start new Open Access collaboratives.



Source: Monroe Plan for Medical Care, Inc.

Neighborhood Health Plan of Massachusetts
Boston, Massachusetts

Neighborhood Health Plan of Massachusetts serves 127,000 Medicaid enrollees across the state of Massachusetts. Faced with financial losses in 2002, Neighborhood Health Plan in Massachusetts set out to reduce overall medical expenses. Like many Medicaid health plans, NHP had experienced high and growing levels of ED use. Members were visiting EDs for ailments as abdominal pain, headaches, urinary tract infections and back pain. NHP hoped to reduce non-emergent ED use by changing patient behavior, connecting patients with their primary care doctors and enabling patients to make informed decisions about appropriate ED use.

NHP made a conscious decision to pursue broad-based outreach strategies instead of focusing solely on ED "frequent users", those who use the ED five or more times per year. NHP conducted a frequency distribution of members' ED visits and found that 80 percent of trips to the emergency room are made by patients who use the ER three or less times a year. Ninety percent of visits are made by patients who go to EDs six times a year or less and the "frequent user" population accounts for just 10 percent of all ED visits. A separate Massachusetts study – this one conducted by the Massachusetts Division of Health Care Finance and Policy – had similar findings. The study found that frequent users dramatically reduced their ED visits after a year of heavy use. Of frequent users in 2002, 28.4% remained frequent users the following year, 46.5 percent became occasional users and a quarter did not visit EDs at all the following year. According to the study, by the time frequent users have made all those visits, there is more than a 66% chance that they are not going to remain high ED utilizers.[57] Based on this information, NHP decided against targeting the frequent user population because they often have other severe medical and/or psycho-social needs. As such, their ED patterns can be extremely difficult to change.

NHP began sending quarterly reports to health centers and physician practices on their patients' ED use. The reports identify patients who have visited the ER in the last year, how many visits they had and for what diagnoses – highlighting those who have not had primary care visits in more than a year. The quarterly reports draw attention to practices with high ED use, and indicate which patients who have gone more than a year without a primary care visit. Along with the reports, the health plan instituted an additional fee-for-service payment designed to give physicians greater incentives for seeing their patients for urgent and illness-related care. This includes additional fees for doctor appointments that fall outside of normal business hours – with the goal of rewarding providers that extend access to after-hours, weekend, and urgent care in the office.

Patient education, meanwhile, comes in the form of "What To Do When Your Child Gets Sick,"[58] a self-help book written at a 5^{th}-6^{th} grade level in both Spanish and English. NHP began distributing the book to every member identified as pregnant. The health plan also markets the book to families whose children have made non-emergent ED visits. Until recently, an equivalent book for populations with lower literacy levels did not exist for adult ailments.[59] The book is distributed to educate members that some ED visits for such ailments as coughs, colds and vomiting could be handled by self care. The health plan sees the book as a low-cost tool to help at least some members improve understanding of their and their children's health, promote self-care when appropriate, and inform decisions about when to seek care. A similar book also exists for adults. NHP sends the family a mailing highlighting the book availability. Members can return a postcard if they would like to receive this book.

NHP describes the success of the ED reduction program as mixed. On the one hand, NHP saw an overall 8.9% decrease in ER rates between 2002 and 2004. In addition, the rate of ED use during normal clinic hours has decreased. In 2003, 35.2% of total emergency visits took place between 9 a.m. and 6 p.m. on weekdays, compared to 11.5% in the most recent 12-month period of June 2005-June 2006. Meanwhile, fewer ED users are patients who have not received recent primary care in the year of their ED visit. In 1999, 30.9% of total ED users had not seen a physician in the last 12 months, compared to 17.5% between March 2005 and March 2006.

But challenges remain. The bulk of the reduction came from commercial NHP enrollees, who faced higher copays.[60] While pediatric ED use among Medicaid patients has leveled off, Medicaid adult use of EDs climbed 14 percent between March 2003 and March 2006.[61] Compared to pediatric practices, adult primary care practices are not as oriented toward same-day access for acute illnesses. And NHP believes some emergency rooms may market themselves as express care centers, with one even sponsoring a billboard boasting of 30-minute wait times to see a doctor.

Financial savings have been modest in that they have mainly reduced the rate of increase of ED expenditures. Per member/per month costs for ED visits have continued to increase, thanks to rising costs per ED visit. Given the decline in growth of ED costs, NHP plans to continue and refine the program to promote health care homes for members as an alternative to sporadic, uncoordinated, acute care in emergency rooms.

NHP has recently found that as a result of state health care reform efforts in Massachusetts, they now have 6000 new members that were previously uninsured. NHP is in the process of trying to assess the needs of this complex population. They are offering monetary incentives to these members if they complete a Health Risk Assessment form that allows the plan to gather some baseline health status information. If the HRA indicates that the member has a history as a frequent ED user, these members will be included in the adult ED program.

The second development is a new four million dollar initiative by the state of Massachusetts to provide ED reduction grants to health care entities across the state. NHP received funding from the program and will redistribute funds to selected health center sites within its network that focus on practice redesign, urgent care, open access, and other initiatives developed to address ED use in low income populations.

Lessons Learned and Recommendations

The combination of increasing emergency department use and rising emergency care costs threaten an already overburdened healthcare system. With the country's EDs stretched thin, strategies for redirecting patients from EDs are increasingly important. Health centers and community-affiliated health plans have already taken steps to prevent inappropriate use of emergency rooms and provide access to primary care. Through these case studies and other research, NACHC and ACAP point out the following lessons learned.

1. Health centers and heath plans have found **lack of start-up funding** to be a major barrier to implement comprehensive ED reduction programs.
2. **Understanding the community's needs** can make an ED reduction program more effective. The ability to identify reasons why community members use the ED instead of primary care helps the health center or health plan address these issues. The working poor need providers who respond to their needs, including availability of primary care after working hours. Low income individuals cannot afford to miss a day of work to see a doctor. Having weekend and evening hours provides better access to primary care for these individuals. This better access could reduce ED use by providing another option for care during the evenings and weekends. Whether the solution is extended hours or targeted patient education, it will only work if the community's needs are addressed.
3. **A strong relationship between the hospital and health center/health plan** may positively impact a health center or health plan's ability to reduce ED use. Health plans that receive real-time data from EDs can reach their members more quickly following an emergency room visit than they would if they simply relied on claims data. Likewise, health centers with increased interaction with the hospital may be better able to serve frequent ED users.
4. **Patient education** for non-emergent issues is important but may work best when coupled with targeted case management. Educational materials should be tailored to targeted patient populations, at appropriate literacy levels and in multiple languages. Beyond patient education, those with complex

needs also need better case management to access needed care to avoid medical complications that result in ED visits.

5. **Investment in health information technology** (HIT) would make communication between hospitals and ED reduction programs easier. Nearly all health centers submit claims electronically.[62] ACAP plans report an average of 54.6% of claims received electronically. But while claims payment has becoming increasingly automated over the last ten years, HIT is still in its infancy for use as a quality improvement tool. Electronic medical records in clinics and the software to communicate effectively between providers and plans would allow records and crucial information to be quickly transferred between the hospital and ED reduction program. It would also help the program monitor whether their patients have been to the ED. Only 9% of health centers report currently having electronic medical records. Cost is the biggest barrier to implementing an electronic medical records system.

Based on these lessons learned, policy makers should consider the following recommendations in order to assist health centers and health plans make further progress on reducing avoidable ED visits.

4. Recognize successful models that improve access to health care homes and provide resources to expand and replicate these models.
5. Savings generated through reducing ED visits through improved access to health care homes should be reinvested in the providers and plans bearing the cost of primary care. While hospitals and payers will see savings, those who generate the savings will only see their own costs rise as they treat more patients.
6. Public insurance must be maintained or even expanded. In order to most effectively improve health outcomes and reduce costs, it is important to have both insurance and a health care home. In addition, third party payers provide needed revenue to safety net providers treating uninsured patients who would otherwise rely on the ED for ambulatory care.
7. Support health centers, safety net health plans, and other safety net providers in implementing HIT. Such support should be above and beyond existing funding streams and should specifically include those organizations that care for underserved communities. Additionally, HIT programs must be comprehensive and coordinated; otherwise health plans will be unable to aggregate and evaluate data received from multiple sources.

Conclusion

Improving access to primary care services clearly reduces ED use, which in turn creates a more efficient and affordable health care system. Health centers and health plans both enhance access to primary health and other care for vulnerable populations. Implementing formal ED utilization reduction programs can further enhance health center and health plans' ability to reduce ED visits. This reduction in ED use can lead to savings for Medicaid, because providing primary and preventive care is cheaper than providing care at an ED. While health centers serve as a vital source of health care homes, Medicaid managed care, by facilitating primary care relationships between Medicaid enrollees and providers and promoting regular preventive care, is also a means to achieving effective health care homes for low-income populations. Receiving primary care and preventive services can help keep medical problems from escalating and becoming more extensive, and therefore more expensive. Although more research is needed to determine the savings generated by these types of programs, savings related to reducing ED visits should offset the costs associated with expanding the capacity of the safety net to meet the increased ambulatory care needs that such efforts will inevitably trigger.

Both the DRA initiative to reduce ED visits and various state health reform initiatives, such as the Massachusetts reform discussed in the NHP case study, show concerted efforts on the part of the federal government and the states to find effective solutions to rising ED utilization costs. Safety net health centers and health plans are poised as ideal partners in these efforts. We hope these case studies will spark collaboration between health centers, hospitals, health plans, and other providers. Further collaboration will only lead to a more cost effective and higher quality health care system.

Appendix A

Annual Wasted Expenditures on Avoidable Emergency Department Visits, 2006

Alabama	$ 319,400,854	Kentucky	$ 353,798,163	North Dakota	$ 41,491,015
Alaska	$ 32,732,965	Louisiana	$ 354,757,738	Ohio	$ 932,659,694
Arizona	$ 311,438,714	Maine	$ 105,902,573	Oklahoma	$ 208,230,028
Arkansas	$ 189,500,122	Maryland	$ 320,407,972	Oregon	$ 179,035,367
California	$ 1,829,345,794	Massachusetts	$ 401,458,842	Pennsylvania	$ 790,754,728
Colorado	$ 238,246,230	Michigan	$ 726,928,960	Rhode Island	$ 61,807,552
Connecticut	$ 207,348,610	Minnesota	$ 256,913,897	South Carolina	$ 265,008,761
Delaware	$ 47,497,790	Mississippi	$ 252,769,055	South Dakota	$ 36,418,180
District of Columbia	$ 55,797,643	Missouri	$ 429,712,468	Tennessee	$ 476,285,058
Florida	$ 1,061,420,739	Montana	$ 54,444,985	Texas	$ 1,233,549,349
Georgia	$ 537,867,735	Nebraska	$ 94,243,689	Utah	$ 152,152,368
Hawaii	$ 55,098,405	Nevada	$ 112,928,929	Vermont	$ 38,015,757
Idaho	$ 88,713,842	New Hampshire	$ 79,046,610	Virginia	$ 452,375,606
Illinois	$ 853,731,297	New Jersey	$ 438,047,852	Washington	$ 354,817,611
Indiana	$ 441,019,299	New Mexico	$ 132,027,370	West Virginia	$ 180,480,840
Iowa	$ 183,880,125	New York	$ 1,126,031,176	Wisconsin	$ 272,179,576
Kansas	$ 159,038,693	North Carolina	$ 548,645,880	Wyoming	$ 36,360,931
		United States	**$18,445,991,718**		

Source: National Association of Community Health Centers. *2006 Access to Community Health Databook*. 2006. www.nachc.com/research/files/2006Datasummary.pdf. For each state's Databook, see www.nachc.com/research/ssbysdat.asp.

Assumes that 35% of all emergency room visits are "avoidable" (i.e., non-urgent or primary care treatable) based on relevant literature. Multiplies average expenditure for an emergency room visit by region, 2003 to 35% of all ER visits in each state in 2004. Then subtracts the average cost of a health center medical visit for each state in 2004. Average medical visit for health centers nationally includes territories. Finally, inflates this to 2006 dollars using the Consumer Price Index. Data sources:

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