Attachment E

HMA

HEALTH MANAGEMENT ASSOCIATES

A comprehensive plan to address appropriate, effective and sustainable health care services for the uninsured and Medicaid populations in Lincoln, Nebraska

PREPARED FOR THE
COMMUNITY HEALTH ENDOWMENT OF LINCOLN

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Research and Consulting in the Fields of Health and Human Services Policy, Health Economics and Finance, Program Evaluation, Data Analysis, and Health System Restructuring

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Contents

Executive Summary 1
Introduction 5
I. Community Assessment 6
II. Access to a Medical Home: FQHC and Community Clinics 11
III. Delivery and Coordination of Mental Health Services 21
IV. Medical Care Delivery Systems 27
V. Sustainability: Short and Long-Term Financing Strategies 30
VI. Governance Options 35
Conclusion 37
Appendix A: Community Health Endowment - Nebraska Interviewee List 38
Appendix B: Environmental Scan 45
Appendix C: Health Information Technology Recommendations 92

Executive Summary

In August 2011, the Community Health Endowment (CHE) engaged Health Management Associates (HMA) to produce a work plan that would address the clinical, organizational, financial, patient management and policy components of the establishment of a more integrated health care delivery system for the underserved populations in Lincoln. Key points of focus in this work were an assessment of Lincoln's Federally Qualified Health Center (FQHC); the potential integration of behavioral and physical health; and funding strategies. This report presents the results of HMA's review.

It became immediately apparent to HMA that the Lincoln community has a number of relatively unique characteristics. There is a tremendous volunteer spirit among health professionals, owing at least in part to a very engaged and active medical society that plays a central role in health care efforts for low income individuals. While Lincoln is a relatively small city, it provides health care for a large geographic area well outside the County borders. There is a robust family practice residency that both local hospitals actively support. There is a relatively low unemployment rate in the area, and there is a significant local resource in the form of a governmental endowment established primarily through the sale of the City Hospital. On the other hand, the community is subject to the same economic and political factors impacting the entire country. The state and county are reducing funding to health care and divesting themselves of certain activities, there is no central body with the responsibility to coordinate efforts for safety net activity, and there is a growing uninsured population. In HMA's estimation, the safety net is currently undersized for the need.

The community appears to be open to finding new solutions to the difficult problems of providing health care to low income populations. In this spirit, HMA offers the following list of recommendations (annotated to indicate location in report):

1) CHE should fund an organization willing to apply for the Centers for Medicare and Medicaid Innovation (CMMI) grant. We believe the following governance would be attractive to CMMI. There should be 15 members including representation from the County Health Department, both acute care hospitals, the Medical Society (two representatives), each hospital's medical staff, the Lincoln Medical Education Partnership, People's Health Center, free clinics, a behavioral health provider such as CenterPointe, another mental health representative (preferably a representative of Region V), and two community members selected at large. CHE should be represented on this committee preferably as Chair. This grant opportunity is worth between $1 million and $30 million over the three-year project period. A proposal was submitted by the Lincoln Medical Education Partnership, in partnership with Region V, CHE, and other safety net providers, for just under $12 million. Grants awards are expected to be announced in late March. (Section VI)

2) The new organization would be responsible to oversee efforts in the safety net and take responsibility that all of them have an appropriate "home." These efforts include the Health Hub, medication assistance program, etc. In other cases they include contracting between key

providers in the community to assure integration and appropriate resource utilization. The new organization would contribute toward both a health home for a larger group of individuals and also serve to further integration between physical and behavioral health services. It also helps create appropriate care for the uninsured at lower cost venues and helps them access benefits for with they are eligible. The combination of these items makes the continuation of these programs worth $2 to $4 million per year. (Section VI)

3) This organization should employ a CEO, preferably a physician with a business degree. The staff should be kept very small, but allow for reviewing metrics that demonstrate the success or failure of the safety net. (Section VI)

4) People's Health Center should contract with LMEP to operate a satellite clinic at LMEP's current site. This contract will be for clinical services. Education will remain the sole purview of LMEP and will be recognized in the contract. This will allow the hospitals to continue to include the residency on their cost reports. This contract negotiation should start with CHE or the new organization, depending on timing, calling together the Boards of LMEP and People's Health Center and facilitating both an initial meeting and the contract process. It will require assistance familiar with FQHC requirements and residency requirements. This partnership creates several clinical benefits and also creates potential new revenues of $1.2 to $1.8 million annually (Section II)

5) People's Health Center should remodel the space now occupied by the Clinic with a Heart to comply with applicable codes to operate as a clinic. They should then staff the clinic during the day as a satellite site. The literature indicates cost savings for the systems with predominance of medical homes of 7-9% of current expenditures (Grumbach, K and Grundy P, 2010). (Section II)

6) Clinic with a Heart (CWAH) should continue to provide urgent care services in conjunction with PHC. The volunteer effort at CWAH needs to be preserved. Over time we recommend that CWAH consider the advantages to the agency and the community in becoming the Urgent Care component of People's Health Center. This would make them a part of the FQHC and require a single set of financial and medical policies. This would both increase revenue into the system, by allowing Medicaid patients access to after-hours care, and reduce ER costs and burden. This is part of the health home expansion outlined above and would contributed to the estimated 7-9% savings. (Section II)

7) The Community Mental Health Center should be separated from the County. However, the County must have a responsibility to maintain funding. This funding should go to CHE so that it could make sure through intergovernmental transfers (IGTs) and/or grants that the required services were provided and enhanced where possible. The impact on physical health, correctional costs and behavioral health from a properly funded mental health center is significant. For the aged, blind and disabled, the literature indicates savings of 20-40% off the total cost of care from effective behavioral health integration. (Sections III and V)

8) We have outlined a process for moving the CMHC into a new entity in the full report. Certain of the services should be provided in partnership and under the license of People's Health Center to maximize integration of mental health and physical health. Certain services must stay under a mental health provider (Medicaid Rehabilitation Option or MRO for example) to maximize effectiveness and minimize cost. This will require some primary care services to be delivered at mental health sites for certain individuals with severe mental illness. For most patients it will require mental health services be available at primary care sites. The involvement of the community in this process, and the integration of behavioral health and physical health services, have a high value (see #7, above). We further estimate that for similar costs, the community could get $1-2 million in additional services through innovation. (Section III)

9) The large downtown site should be carefully evaluated for use by multiple organizations in co-location. A full business plan would need to be developed that assures the space would be effectively utilized and the services could be funded. Certain parking issues will also need to be addressed. While this site has great finishes and many possibilities, it may not be financially viable. There is certainly an opportunity for CenterPointe, Community Mental Health Center, and People's Health Center to co-locate some of their services. Certainly if the Community Mental Health Center needs to move, the space becomes more viable. In any case we believe the current People's Health Center site should continue. (Section II)

10) CHE and/or the new organization and the hospitals need to work with leadership in Omaha to influence the state to create an upper payment limit program for certain hospitals as well as integrating the Psychiatrist Hospitalist program into the existing physician program. This will allow leveraging of certain funding to significantly increase funds for critical primary care, behavioral health, connectivity between providers, and other programs. This could take a little more than $2 million in funding and make it into $5 million with federal match, yielding $3 million net annually in new federal funds. (Section V)

11) The General Assistance (GA) funding and patients should move to the People's Health Center or its satellite as soon as possible. Consistent with the estimates above, this should yield overall savings of 7-9%. (Section II)

12) People's City Mission should be asked to define their vision for the future. As health reform moves forward, there will be a limited number of people not covered by governmental or private insurance. If their plan is to not work with these resources, the People's City Mission should work with the community to define that remaining niche. Further, the provider community should define appropriate referral guidelines and primary care responsibilities for care. People's City Mission would then have the option to work with the community as a full partner or to choose to not participate. In either case this should be appropriately communicated to funders and governmental entities. (Section II)

13) The new organization should communicate the recommendations in this report to providers, volunteers, funders, and the general public for the purpose of creating a better understanding of the true strengths and weaknesses of the current safety net system in Lincoln.

Introduction

In August 2011, the CHE engaged HMA to produce a work plan that would address the clinical, organizational, financial, patient management and policy components of the establishment of a more integrated health care delivery system for the underserved populations in Lincoln with a primary focus on an assessment of Lincoln's Federally Qualified Health Center (FQHC); the potential integration of behavioral and physical health; and funding strategies.

In developing this work plan, HMA has conducted a careful review of the populations to be served, the providers that are and could be serving them, opportunities for maximizing resources directed to this care, potential infrastructure supports to assure that resources are utilized as effectively as possible and the impact of new governmental (local, state and federal) initiatives and programs are factored into projections for the long-term sustainability of any proposed coordinated system of care.

HMA used interdisciplinary teams experienced in and focused on 1) community assessments (including who is the population, where do they get their care now, where are the gaps and duplications, what is the projected impact of health reform); 2) FQHC assessment; 3) options for mental health services delivery and coordination; 4) medical care delivery systems (from primary to specialty to inpatient services); 5) short and long-term financing strategies to assure sustainability; and 6) governance options.

HMA is a consulting firm specializing in the fields of health system restructuring, with a particular focus on the safety net; health care program development; health economics and finance; program evaluation; data analysis; and health information technology and exchange. HMA is widely regarded as a leader in providing technical and analytical services to health care providers, purchasers and payers, particularly those who serve medically indigent and underserved populations. Founded in 1985, Health Management Associates has offices in Lansing, Michigan; Chicago, Illinois; Indianapolis, Indiana; Columbus, Ohio; Washington, DC; Tallahassee, Florida; Austin, Texas; Sacramento, California; New York, New York; Atlanta, Georgia; Boston, Massachusetts; and Harrisburg, Pennsylvania.

I. Community Assessment

In engaging HMA for this project, one of the CHE's goals was to have a detailed description of the environment in which future health care delivery and sustainability decisions will be made. Toward that end, HMA has conducted an environmental scan of the community. Highlights of this scan are summarized below; the full scan appears in the report as Appendix B.

In recognition of the new requirement in the Affordable Care Act (ACA) that charitable hospitals perform a community health needs assessment, this scan and the report of which it is a part were formulated with these hospitals in mind. Data that can be used for the needs assessment are included in the scan; other information contained in this report will also prove useful for this purpose. Following the summary of the environmental scan is an explanation of the requirement for a community health needs assessment.

Environmental Scan

HMA conducted an environmental scan of Lancaster County demographics, health outcomes, risk factors, prevention, access to services, and utilization. HMA relied on well-known national sources of data as well as data provided by the county, health care providers, and other community stakeholders. We identify the following findings.

Demographics

- Lancaster County experienced robust population growth in the past decade, with very high growth in minority populations. Double digit growth is expected to continue over the next four decades. By age, the largest rate of growth is projected for the 65+ age group.
- Lancaster County enjoys an extremely low unemployment rate compared with the nation and average income measures.
- The county's small minority population has high poverty rates.

Health Outcomes

- Lancaster County has higher infant mortality rates for black and Hispanic babies. While these have declined significantly in recent years, the infant mortality rate among blacks remains higher than that for whites and Hispanics.
- While the infant mortality rate for white non-Hispanics, considering all causes of death, is favorable to the US and peer counties, Lancaster had a higher rate of death for white infants under the age of one from complications of pregnancy based on 2003-2005 data. (Figure 8 of the Environmental Scan in Appendix B.)
- For the 25 to 44 age group, the percentage of deaths caused by suicide exceeds that for injuries and cancer. Overall mortality from suicide is higher than the U.S. average, but in 2009 was at its lowest rate in eight years.

- For the 45 to 64 age group, cancer is the leading cause of death for both black and white populations, accounting for about 40% of deaths in both populations in the age range. The overall rate of death from cancer decreased in 2008/2009.
- For the age group 65+, heart disease and cancer account for about 25% and 22% of all deaths, respectively. The overall death rate from Chronic Heart Disease is low compared to peer counties and has dropped significantly from 2002 to 2009.

Risk Factors

- Lancaster County residents generally are less likely to report fair or poor health and more likely to report moderate or vigorous exercise than the state and U.S. average. They also have a lower rate of obesity. However, compared to peer counties, Lancaster lies in the mid to high range on these risk measures.
- Diabetes rates have been trending upward.
- Lancaster County residents report higher rates of alcohol consumption than the state or U.S. averages.
- Lancaster current smoker trends fell significantly from 2008 to 2010.

Prevention

- Lancaster County’s rates of preventive services are, for the most part, comparable to rates for the state and the nation.
- The County’s steady increase since 2005 in prenatal care during the first trimester of pregnancy, experienced a significant decrease in 2010. However, steady and dramatic growth in the number of women with ten or more prenatal visits continued in 2010.
- Since 2002 the county’s colon screening rate is on the increase.
- Since 2000 Lancaster County has seen an increase in reported HIV cases.

Access to Coverage and Services

- The percent of uninsured adults aged 18 to 64 has increased steadily since 2005, with an overall estimated uninsured rate of 11% in 2009. Almost 20% of individuals aged 18 to 34 are uninsured, the highest rate among all age groups.
- The number of primary care physicians per 100,000 (85) and the number of dentists per 100,000 (132) are comparable to or higher than peer counties.

Provider Services and Utilization

- While the two hospitals – BryanLGH and St. Elizabeth Regional Medical Center – serve a geographic area extending beyond the county, Lancaster County residents account for most of the patients served: 68% to 72% of inpatients, and 79% to 84% of outpatients.

- Both hospitals have similar public payer distributions for inpatient services. Medicaid covers approximately 8% of County residents. Medicaid accounts for 14% of combined IP admits and discharges and 16% of combined patient days in the two hospitals.
- Both hospitals have similar percentage of patients that are uninsured. Approximately 11% of County residents lack health insurance coverage. Self-Pay accounts for about 5% of combined admits/discharges and 5% of combined patient days in the two hospitals.
- The most common reason (determined by DRG frequency) for admission to St. Elizabeth is delivery of babies. This accounts for nearly 10% of all stays, 25% of Medicaid stays, and 14% of Self Pay stays. More than half of the top 10 DRGs for Medicaid and Self Pay stays are delivery-related.
- The most common reason (determined by DRG frequency) for admissions to BryanLGH is psychosis. This DRG accounts for about 9% of all stays, 19% of Medicaid stays, and 19% of Self Pay stays. For both Medicaid and Self Pay, four of the top 10 DRGs relate to mental disorders or substance abuse. The remaining six for Medicaid are OB delivery-related.
- Medicare patients account for 14% of patients using the ER at BryanLGH and for 20% of visits. Medicaid accounts for 26% of patients and 28% of visits. Self-Pay accounts for 17% of both patients and visits.

Community Health Needs Assessment

Section 9007 of the ACA establishes additional requirements on hospitals that wish to qualify as charitable hospitals for tax purposes. Section 9007:

- Requires hospital organizations to perform community needs assessment every three years and adoption of implementation strategies for identified needs
- Requires adoption and wide publication of financial assistance policies regarding free and discounted care
- Limits charges to patients who qualify for financial assistance
- Requires reasonable attempts to determine financial assistance eligibility before starting extraordinary collection actions
- Establishes a tax of $50,000 per year for failure to meet these requirements.

ACA provisions related to a community needs assessment requires hospitals to perform the assessment every three years, to take into account input from a broad representation of community interests and those with public health expertise, to make the assessment widely available to the public and to adopt an implementation strategy to meet the community needs identified through the assessment. Hospitals should convene a group of community representatives to guide plans for the assessment, conduct the assessment, identify priority needs to be addressed, plan strategies to meet these needs and prepare a written report summarizing all activities and findings.

Proposed Internal Revenue Service (IRS) regulations released in the summer of 2011 included provisions for written community needs assessment reports to include the items listed in this excerpt of the proposed regulations.

1) A description of the community served by the hospital facility (as defined in section 3.05 of this notice) and how it was determined.
2) A description of the process and methods used to conduct the assessment, including a description of the sources and dates of the data and other information used in the assessment and the analytical methods applied to identify community health needs. The report should also describe information gaps that impact the hospital organization's ability to assess the health needs of the community served by the hospital facility. If a hospital organization collaborates with other organizations in conducting a CHNA (as described in paragraph (2) of section 3.04 of this notice), the report should identify all of the organizations with which the hospital organization collaborated. If a hospital organization contracts with one or more third parties to assist it in conducting a CHNA, the report should also disclose the identity and qualifications of such third parties.
3) A description of how the hospital organization took into account input from persons who represent the broad interests of the community served by the hospital facility (as defined in section 3.06 of this notice), including a description of when and how the organization consulted with these persons (whether through meetings, focus groups, interviews, surveys, written correspondence, etc.). If the hospital organization takes into account input from an organization, the written report should identify the organization and provide the name and title of at least one individual in such organization with whom the hospital organization consulted. In addition, the report must identify any individual providing input who has special knowledge of or expertise in public health (as provided in paragraph (1) of section 3.06 of this notice) by name, title, and affiliation and provide a brief description of the individual's special knowledge or expertise. The report also must identify any individual providing input who is a "leader" or "representative" of 11 populations described in paragraph (3) of section 3.06 of this notice by name and describe the nature of the individual's leadership or representative role.
4) A prioritized description of all of the community health needs identified through the CHNA, as well as a description of the process and criteria used in prioritizing such health needs.
5) A description of the existing health care facilities and other resources within the community available to meet the community health needs identified through the CHNA.

While the proposed regulations do not identify data that must be included in the assessment, a community needs assessment should address the following types of questions.

- What is the overall health and well-being status of the population?
- What are the population's health needs?

- Which population subgroups (gender, age, ethnicity, and insurance/payer) are at highest risk for health problems?
- Where (geographically) are high-risk groups located?
- Are there trends in the data that show an increasing or diminishing problem?
- How does your community compare to others (federal, state, similar community) or itself over time?
- What resources are available in the community and where are the gaps?
- What are the community's strengths or assets?

As noted in the introduction to this section, there is a wealth of material in the scan and throughout this document that HMA anticipates will be useful to the community's hospitals in performing their assessments. It is important to note that the Lincoln-Lancaster County Health Department has a wealth of excellent, up to date data available for more in depth analysis. More recent data is available to compare counties on health measures. There is always variability in data as well as more recent data for some measures. The Community Health Status Indicators (CHSI) data used by HMA is older than data the health department has on hand. HMA made every effort to add the newer Lancaster County data for nearly all measures. Nonetheless the health department's newer data for comparison counties may be useful for compiling the community health needs assessments.

II. Access to a Medical Home: FQHC and Community Clinics

As a crucial component of the Lincoln/Lancaster County safety net, People's Health Center occupies a unique role. In light of this, HMA was asked to provide recommendations regarding PHC, including, but not limited to:

- One site vs. satellite locations;
- Expanded days/hours of service;
- Size/scope of possible expansion;
- Optimal location(s);
- Recruitment of physicians, physicians extenders, and other staff;
- Benchmarks related to grant funding, fee collections, payer mix, etc;
- Benchmark comparisons, as well as local and state issues which make it difficult to meet these comparisons; and
- Missed and potential opportunities for PHC funding.

In addition, HMA was asked to provide an assessment of and recommendations regarding Lincoln's "free clinics," including their role in the local safety net, continuity of care, payment issues, patient information exchange, provider communication, and use of referral/specialty services.

With regard to General Assistance, HMA was asked to provide specific recommendations for transitioning GA patients into the community for primary care/medical home in anticipation of Medicaid expansion under federal health care reform, including a timeline, to whom, and how.

People's Health Center (PHC) was founded in 2003, as part of a community effort to establish a medical home for the area's uninsured and underinsured. The health center has grown from one physician to a provider staff that now includes 3 full-time equivalent (FTE) family physicians, 4 FTE mid-level providers and several volunteer providers, in addition to a large dental practice. In 2010, PHC saw nearly 30,000 medical encounters and more than 8,000 dental encounters.

While PHC has grown steadily since its creation and is now a key component of the local safety net, it has struggled financially in recent years as a result of a difficult payer mix and ineffective management. Under the leadership of a new management team that was installed approximately two years ago, PHC has stabilized its finances and now finds itself at a crossroads. It is facing growing demands from other safety net providers and the community to serve as the medical home for a growing population of uninsured and underinsured patients. At the same time, PHC is confronting the difficulties of sustaining and growing a business model where the majority of its patients have no payer source while simultaneously adapting its clinical model to integrate behavioral health services, specialty care and to serve as a true patient-centered medical home for its patients. How PHC addresses these issues will not only define its role in the Lancaster County safety net, but will also shape the structure of the safety net itself.

To analyze these issues, HMA met with the PHC executive director and leadership team – including the medical director, finance director and operations director – in addition to selected providers and non-clinical staff. HMA also reviewed health center staffing, financial and utilization data and met with PHC board members to discuss the CHE project and gather their input on health center operations, strategic planning and PHC's role in the Lancaster County safety net. The sections below summarize HMA's findings with respect to People's Health Center and its role within the Lancaster County safety net.

PHC is a critical component of the Lancaster County safety net, but it must grow to meet community needs. Almost without exception, individuals interviewed for this project spoke of the critical role that PHC plays in the area safety net. Indeed, PHC was frequently cited as the only medical home option for uninsured patients and, to a lesser degree, Medicaid patients. Individuals interviewed were generally happy with the quality of care provided by PHC and noted that the new PHC leadership team had improved operations and the organization's bottom line. However, individuals interviewed almost universally expressed frustration with growing access problems at PHC. Respondents frequently noted wait times for new patients of six weeks to several months, and were largely unaware of a relatively new PHC policy to guarantee access for new Medicaid patients within a couple days.

PHC is at capacity in its current space and is now constrained by the space. Based on a review of health center data and interviews with health center providers and staff, it is clear that PHC is at or very near capacity in its current location. While provider productivity is quite good compared to national and regional benchmarks, provider and non-provider staff cited an insufficient number of exam rooms as the major limiting factor in seeing more patients in the existing space. The health center is already open extended hours (8 a.m. to 7 p.m.) four days per week. Thus, the options for seeing more patients at the current site are quite limited.

PHC has improved its financial position but has done so at the expense of access and potential grant opportunities. Like many FQHCs, PHC was operating with a payer mix that was unsustainable without substantial outside (non-patient revenue) resources. The table below summarizes PHC's payer mix compared to national and state averages.

Payer Mix: PHC versus State and National

Payer	PHC 2009	PHC 2010	Nebraska 2010	National Average 2010
Medicaid/SCHIP	29%	31%	23%	39.7%
Medicare	6%	9%	4%	7.5%
Other Public	2%	0%	0%	1.4%
Private/Other	8%	9%	12%	13.9%
Self-Pay	55%	51%	61%	37.5%

Source: UDS reports

The table illustrates that, overall, Nebraska FQHCs have a far more challenging payer mix than their counterparts nationally and, in fact, PHC's payer mix compares quite favorably to its Nebraska peers. Nevertheless, health centers that have an uninsured percentage above the national average tend to

struggle financially and often have to adopt a resource-intensive "chase the grant" strategy to sustain operations. The table below shows health center revenue by source for PHC compared to its counterparts in Nebraska and nationally in 2010. Not surprisingly, Nebraska health centers, including PHC, must rely more heavily on non-patient services revenue due to their payer mix.

Sources of Revenue: PHC versus State and National (2010)

	PHC	Nebraska	National
Patient Services Revenue	50%	39%	59%
Federal Grants	24%	33%	23%
State/Local Grants	23%	24%	15%
Other	3%	4%	3%

Source: UDS reports

Health centers that face a challenging payer mix face several options:

- Restrict access for uninsured patients. PHC has already begun to do this, but is facing intense pressure from the community to serve more uninsured while remaining financially viable.
- Increase Medicaid volumes. PHC has also begun more aggressive outreach to Medicaid clients, including patients that have been assigned to PHC but have not had a visit. These are important strategies that should be continued and expanded. However, in the absence of additional capacity, more Medicaid patients will result in less access for the uninsured.
- Reduce costs. HMA did not complete a detailed cost analysis for this study, but notes that, according to UDS data, PHC patient care and administrative staffing – which comprise the vast majority of health center costs – are in line with national and regional benchmarks. There may be limited opportunities for some cost reductions through increased productivity and economies of scale in management and supplies that can be achieved as the health center grows.
- Chase grants. Many health centers with difficult payer mixes resort to "chasing grants" to sustain operations. While this strategy can be effective, it is extremely resource intensive and disruptive to health center operations, as programs and staffing are subject to the availability of grant dollars.
- Assume downstream risk (e.g., pharmacy, ED, inpatient, etc.) for FQHC patients and share in the savings from effectively managing these risks. According to UDS data and staff interviews, PHC currently takes little or no risk for its Medicaid managed care patients, either for primary care or for any "downstream" services. FQHCs are increasingly taking steps to align their reimbursement models and incentives with the value that they provide as a medical home. Doing so requires a significant change in the FQHC's business and operational model, but can have a significant positive impact on the organization's bottom line.

Nebraska FQHCs have likely been able to sustain themselves through a combination of state grant funds and support from outside parties, most likely their local hospitals, and the data indicate that they have also been successful in taking advantage of recent federal grant opportunities under ARRA and ACA. Nebraska is fortunate to have a state grant program through the Office of Minority Health that helps support safety net providers, including FQHCs, and another program ("Section 502") that provides direct support to FQHCs to offset uninsured costs. PHC receives approximately $250,000 and $280,000 annually through these programs, respectively; however both are considered vulnerable due to budget cuts and the perception that FQHCs were "taken care of" through ACA.

As economic conditions worsen and uninsured numbers rise, FQHCs nationally are reacting by reducing access for uninsured patients. PHC has adopted this strategy. Preliminary 2011 data show self-pay volumes declining and Medicaid volumes increasing, which leadership and staff attribute to the access changes in the schedule as well as more aggressive outreach to the Medicaid population. PHC has also made improvements in its operating position over the last year by switching to a new, more effective billing vendor.

Interview participants both inside and outside of PHC were clear that PHC's focus over the last year has been "getting its fiscal house in order." This was undoubtedly a necessary step, as PHC was operating at a deficit and at risk of having to make severe staffing and service cuts. Unfortunately, however, the timing of this "rebuilding" period coincided with substantial federal grant opportunities that are unlikely to be seen again. These grant opportunities, which include those listed below, could have supported a significant expansion of PHC services:

- New Access Point (NAP) grant opportunity. This grant opportunity was due in December 2010, and awards were announced in August 2011. While HRSA had originally planned to fund more than 300 NAPs, which can include both new FQHC organizations and new sites of existing FQHCs, budget cuts reduced this figure to just over 60. HRSA anticipates funding more NAPs in 2012, subject to appropriations, but will draw from the pool of existing, high-scoring applicants. Thus, there will most likely be no NAP opportunities available for new applicants until at least 2013.
- *Capital Grants.* HRSA announced two capital grant opportunities in mid-September, a Building Capacity Grant Program (CD-BD), which was due on November 9, and an Immediate Facility Improvement Grant Program (CD-IFI), which is due on November 22. The former program provides grants of between $500,000 and $5 million for alteration and renovation of an existing facility or new facility, or for construction of a new or to expand an existing site. The latter program provides grant awards of up to $500,000 to "address immediate and pressing capital needs within existing 330-funded health centers." Both of these programs are funded through the dedicated FQHC capital funds included in ACA. They will likely be the last federal capital grants for at least several years (probably longer). Like all HRSA grant applications, these capital grant applications required the applicant to demonstrate the need for the project, the impact it will have on their services and target population, and their organizational capacity to implement the project. Applications had to include a detailed project budget, operational budget (pre and

post-construction), site plan, floor plan/schematic and a project management plan. While all existing FQHCs were eligible to apply for the grants, the short time-frame clearly favored applicants with existing "shovel ready" projects in the pipeline (including applicants who applied for previous HRSA capital grants but did not receive awards).

While there will likely be additional federal grant opportunities in coming years, the level of funding is uncertain, due to the interplay between HRSA's appropriations and the ongoing deficit reduction talks at the federal level. It is important that PHC be ready for these opportunities, but also not depend on them. This means having an updated, comprehensive strategic plan and community needs assessment. Unfortunately, it is very unlikely that HRSA will offer additional capital grant opportunities in the near future, as the most recent opportunities will exhaust all of the funds allocated for capital in the 2010 Affordable Care Act.

PHC – and the entire Lancaster County Safety Net – is constrained by a lack of resources to support indigent care. Many of the individuals interviewed for this project were justifiably proud of the steps that Lincoln/Lancaster County has taken to manage the uninsured population through centralizing access to services and distributing the costs of downstream care (e.g., diagnostics, specialty care, inpatient care) across the entire community. However, some of these same individuals noted the lack of resources/support for primary care services. To paraphrase one respondent, "Lincoln does a very good job of identifying the uninsured and getting them into a medical home, but does a poor job of supporting those medical homes."

Recommendations

HMA offers several recommendations and action steps to address each of the findings described above.

Create PHC satellites to increase access, improve payer mix, and improve operational efficiency. While the need for PHC to expand is virtually indisputable, there is significant disagreement within the community about how PHC should expand. More specifically:

- Should PHC move to a new, large single site? Should it maintain its current site and establish one or more satellite sites?
- Where should a new single site or satellite sites be located?

It is important to note that successful FQHCs operate under both models, and there are pros and cons with each model. Large single sites offer "one stop shopping" and certain administrative efficiencies and flexibilities, including the ability to easily move staff around based on scheduled and unscheduled factors. However, large single sites often create access problems for patients -- especially those who are disabled or lack their own transportation – and provide less flexibility for the FQHC to target services to specific geographic regions. Based on HMA's review of health center data, community data and interviews with dozens of community stakeholders, we recommend that PHC maintain its current location and establish one or more satellites. More specifically, HMA recommends the following:

- Maintain the current PHC location at 1021 N. 27th St. and potentially expand its hours, based on patient response (see discussion below).

- Establish the LMEP clinic as a PHC satellite location (see discussion below).
- Establish satellites at CMHC locations.
- Establish a satellite location in central Lincoln within the area bounded roughly by 10th Street to the west, 27th Street to the east, L Street/Capitol Parkway to the north, and South Street to the south. This is an area that includes a high concentration of Medicaid enrollees, many of whom use the current PHC location. A satellite in this area would expand capacity and alleviate some of the pressure on the current site. Clinic with a Heart (1701 S. 17th St.) is within this area and is a potential location for this satellite. This could provide urgent care capacity for PHC.

The recommendation for satellites was based on the following factors:

- The current health center is attractive, accessible and located in a high-need area. Patient zip code origin data and Medicaid participant data clearly indicate that the current PHC site is located in a very high need area . Nearly 20 percent of PHC's patients live in the PHC zip code (68503). The health center is also located on a bus route and is easily accessible for patients both with and without their own transportation.
- Several individuals interviewed for this project cited a recently vacated medical office building (the Duteau Building) at 18th and O Streets as a possible location for a new PHC location. The building is centrally located between the two areas from which PHC draws the majority of its patients and the areas of highest Medicaid concentration. HMA toured the building. The clinic area is on the second floor and includes approximately 26,000 square feet. The space could accommodate approximately eight providers. There are 23 exam rooms; two procedure rooms; a treadmill room; a large lab with two drawing rooms; diagnostic services area with rooms for mammography, bone density, EKG, ultrasound, and plain films; four nurses stations; 16 offices; a large file storage room; a call center room, a conference room; a break room; and a large reception and waiting area. While the building is attractive and located in a high-need area, there is insufficient on-site parking for FQHC patients and staff. Off-site parking requires patients to cross several busy streets, which would pose a significant obstacle for many patients.

While HMA does not believe that PHC should relocate to the Duteau Building, we believe the site should be carefully evaluated for use by multiple organizations in co-location. A full business plan would need to be developed that assures the space would be effectively utilized and the services could be funded. Parking issues will also need to be addressed. While this site has great finishes and many possibilities, it may not prove to be financially viable and only a careful business planning process can evaluate this. There is certainly an opportunity for CenterPointe, Community Mental Health Center, and People's Health Center to co-locate some of their services. If the Community Mental Health Center ultimately needs to move, the space becomes more viable.

***Integrate the Lincoln Medical Education Partnership (LMEP) clinic into People's Health Center*.** The Lincoln Medical Education Partnership is a foundation model family medicine residency program affiliated with the University of Nebraska. LMEP operates a clinic that provides approximately 30,000

visits annually, and they are a significant Medicaid provider. For a variety of reasons discussed below, FQHCs and residency programs are increasingly finding ways to integrate their services and operations.

If LMEP services were incorporated under PHC's scope of service, they would receive enhanced Medicaid and Medicare reimbursement. For example, the current residency clinic site could be incorporated under PHC's FQHC scope-of-service sites. Under this scenario, all services provided at the residency clinic site would be under the governance of the FQHC Board of Directors, and resident time in the clinic would be considered an off-site rotation.

It is important to note that, while the strategies above could be implemented through a federal "change of scope process," they would require a letter of support from the other FQHC Look-alike in the service area (or a very strong explanation as to why a letter cannot be obtained).

Arrangements like those described above are common between FQHCs and residency programs. From the resident perspective, FQHCs often offer an array of support services for their patients (e.g., social work, patient education) that are not common in many residency practice sites. From the residency program's perspective, enhanced reimbursement is attractive, as is the option of an additional community-based rotation site.

From the FQHC's perspective, residency program partnerships can help grow the FQHC's patient base, especially its Medicaid patient base. Perhaps even more important, residents who train in FQHCs represent an important recruitment source for the FQHC as it grows and adds new providers. In contrast, however, residents also negatively impact health center productivity and can affect continuity of care if the FQHC becomes dominated by residents rather than core, full-time providers. Unfortunately, LMEP appears to be operating at or near capacity and, as a result, will not help relieve the pressure on the current PHC site.

As with any affiliation agreement, the "devil is in the details," and LMEP and PHC would need to establish an arrangement that both find financially beneficial and consistent with their respective missions and regulatory requirements. The first step to establishing an affiliation agreement is to model the financial impact of the partnership for both parties. The next step is to develop a formal affiliation agreement that spells out in detail the roles of both parties. The contract would be for clinical services. Education would remain the sole purview of LMEP, and this would be recognized in the contract. This would allow the hospitals to continue to include the residency on their cost reports. This contract negotiation should start with CHE, as soon as is practical, calling together the Boards of LMEP and People's Health Center and facilitating the initial meeting. It will require assistance familiar with FQHC requirements and residency requirements.

Study the feasibility and impact of further expanding hours at the current site. Due to space constraints, the only mechanism for substantially improving access is to further expand evening hours or begin offering weekend hours. PHC currently offers evening hours (until 7 p.m.) four days a week. FQHCs have had varying experiences with evening and/or weekend hours, and success is often contingent on several factors, including the availability of transportation, whether or not the clinic is located in a safe area, the work-status of the patient population (i.e., shift work versus 9-5), and other factors. As a

result, HMA recommends that PHC first complete a patient survey to determine if patients would use extended (e.g., until 8 p.m.) or weekend hours. If there is demand for additional hours, PHC should ramp up the additional hours slowly to avoid incurring large additional expenses without the supporting patient volumes. Expanded hours at the current PHC site may help relieve current access issues, while a longer-term solution, including the establishment of satellite sites, is developed and implemented. If Clinic with a Heart is integrated into PHC as discussed above, this site could provide the evening hours.

Address patient panel issues and move toward accepting downstream risk. PHC's current patient population is weighted heavily toward adults (approximately 72% of health center patients were adults in 2010), many of whom have one or more chronic conditions. The lack of an internal medicine physician on staff, given this patient population, has significant implications for patient care, productivity, and staff satisfaction/"burn out", all of which were noted in our stakeholder interviews. The addition of an internal medicine physician would allow for more appropriate empanelment of patients, and would allow mid-level providers to see lower acuity patients.

While PHC continues to develop as a patient-centered medical home, and incur the costs to do so, its current reimbursement model does not capture any of the downstream savings that are realized by effective primary care. Movement toward a risk-based model would be gradual, with PHC assuming additional risk as it is able and its managed care plans are willing. The first steps toward a risk-based model include an assessment of health center operations, affiliations with downstream providers, and current managed care contracts.

Develop a funding source for the uninsured. As discussed above, it is difficult to sustain an FQHC where the majority of its patients have no payer source. While the FQHC receives an annual grant from the federal government to offset the costs of caring for the uninsured, these grants typically cover only a fraction of the full costs. Health centers often compensate by cross-subsidizing their uninsured patients with the favorable reimbursement they receive on their Medicaid and Medicare patients, but the ability to do this is limited.

HMA recommends establishing a formal funding pool for indigent care provided at PHC. Specifically, indigent care would be supported through a community benefit grant from the hospitals to PHC. The community benefit grant would be set at a level to cover the costs of care for the uninsured to the extent that the percentage of uninsured exceed sustainable levels. The community benefit grant would be supported – at least in part – by the hospital UPL program described in Section V.

Free Clinics

The current safety net system in Lincoln provides multiple access points for the uninsured and Medicaid patients. However, some of these are inefficient, duplicative, not cost effective, and not readily available to the uninsured. Others do not constitute true medical homes for underserved populations. Examples include the People's City Mission (free clinic with 2 employed staff, no continuity of care, limited access to lab and diagnostics); Clinic with a Heart (free clinic with 2 paid staff, limited evening hours, no continuity of care, limited number of visits per patient per year); the Nebraska Urban Indian Medical Center (NUIMC), which is an FQHC look-alike that does not partner with other providers or organizations, headquartered in Omaha; and primary clinics at both hospitals that do not serve the

uninsured. The delivery system should reduce overall costs and redundancies while expanding access, promoting prevention and primary care.

HMA would recommend that Clinic with a Heart provide urgent care services in conjunction with PHC. Further, we recommend that PHC remodel the space currently occupied by Clinic with a Heart to meet clinic requirements and staff it as a satellite during the day. We recognize that there are very important aspects to Clinic with a Heart's mission, but believe these can be accommodated.

The Nebraska Urban Indian Medical Center has shown little interest in integrating with the community. Their administrative structure and support is located in Omaha. They should be approached to merge their Lincoln satellite into PHC. This may require a financial investment to acquire clinic space and maintain ongoing services for the population currently served. However, the benefit of a safety net that functions in unison and maximizes community resources may be well worth the investment.

People's City Mission, in particular, should be asked to define its vision for the future. As health reform moves forward, there will be a limited number of people remaining outside of governmental or private insurance coverage. If the organization plans remain unconnected from these resources, the People's City Mission should work with the community to define that remaining niche. Further, the provider community should define appropriate referral guidelines and primary care responsibilities for care. People's City Mission would then have the option to work with the community as a full partner or to choose to not participate. In either case this should be appropriately communicated to funders and governmental entities.

General Assistance

- In FY 2011, the GA clinic saw 343 patients and 2,499 medical visits. Total clinic expenditures for FY 2011 were $431,761, which includes both medical (personnel, administration, on-site lab and 24-hour nurse triage) and dental services. This equates to costs of approximately $1,200 per GA enrollee, compared to PHC per patient cost of approximately $440 (2010). It is important to note that these figures are not directly comparable, as PHC and GA serve different patient populations and do not provide identical services. For example, GA patients averaged 7.3 medical visits per year in 2011, compared to just over 3 visits per year for PHC patients (2010). Nevertheless, these figures are informative and help drive the discussion below.
- Lancaster County operates one of the most generous GA programs in Nebraska, but many have questioned the need for maintaining a separate primary care delivery system for this population. If health reform is implemented as scheduled in 2014, the majority of the GA population will become eligible for Medicaid. Even in the absence of Medicaid, the GA population may transition on and off of Medicaid. Maintaining separate delivery systems is costly and also disrupts patient care. While there is currently no capacity to transition these individuals into PHC, through a combination of the expansion strategies described above, PHC should be able to create the capacity to provide a medical home for the GA patients. As soon as

the first satellite location is available, HMA recommends that the GA funding and patients should be transitioned to PHC.

III. Delivery and Coordination of Mental Health Services

With regard to mental health services, HMA was charged with providing an assessment of and recommendations regarding the structure, location, funding, and governance of public mental health services, including the scope and financing of integrated primary care and behavioral health services.

Lincoln has an active community services system available for individuals with behavioral health issues. There are multiple providers, an active hospital system with a mental health emergency department, collaborations between services providers, and a strong consumer group. Currently, the system is facing a change in how the Community Mental Health Center (CMHC) is managed. Lancaster County has traditionally managed the CMHC through the use of county employees and a county provided facility. The bulk of the funding for the CMHC comes from Region V (designated as the mental health authority) and through the direct billing of Medicaid with the county providing relatively few dollars for direct services (crisis beds). The Lancaster County Board of Commissioners is interested in moving away from the use of county employees in the provision of this type of direct service, based at least in part on the high cost of services compared to other areas. The salaries and benefits received by the Lancaster CMHC staff are higher than those paid by private providers. Based on this, the cost of services provision is higher when compared with other Nebraska CMHCs. While the county is no longer committed to providing direct services, they indicate they are committed to the provision of quality services for individuals with behavioral health issues in Lancaster County.

In addition to the impending change in the CMHC, the State of Nebraska is proceeding down a path of procuring a statewide vendor (or vendors) for managed mental health services for the Medicaid population. This adds to the atmosphere of uncertainty and makes careful mental health planning all the more important.

HMA met with individuals and groups who represented the consumer community, senior management at both the county-run CMHC and private not-for-profit agencies, Region V administrators, tribal providers, front-line staff, and the corrections system. The consistent theme across all groups was a strong commitment to individuals with behavioral health disorders, a desire to strengthen the system and the collaboration within the community, and a sense that changes to the current structure of the Lancaster Community Mental Health Center present both a challenge and an opportunity.

In general, the concept of the community mental health system has undergone many changes since its original development during the de-institutionalization movement. The idea had been to provide a comprehensive service arena for individuals with mental health disorders to prevent their re-entry into long term care facilities, which were often managed by states. These safety net providers would be well funded and would provide services for all the individuals in a community (city, town, county) who were unable to live without support (medication, case management, etc.). Unfortunately, the funding has not kept pace with community needs and many individuals in need of services have issues that are complex in nature and involve mental health, substance abuse, and primary care needs. CMHCs have had to become efficient in their provision of services, skilled at billing multiple sources for services, and to move into areas that were viewed as less traditional mental health arenas (e.g., sexual offender

treatment, forensic services, jail diversion, and housing). The traditional service system was best suited to serve individuals who have no primary health needs, never encounter the forensic system, do not have substance use or abuse issues, and do not need support to obtain housing, education, or employment. Of course, such individuals would be rare in reality – individuals with mental health issues tend to need help with all these other needs. The challenge for every community is to create a service system that provides for the needs of the whole person navigating the road to recovery. This is often possible only through collaboration in a "virtual" system.

The Community Mental Health Center of Lancaster County has worked very hard to provide quality services. They have had consistent leadership for many years however the current CEO will retire in mid 2012 and currently there is no succession plan that would ensure continued stable leadership. CMHC leadership is clearly committed to both their staff and the individuals they serve. It is clear the leadership is trying to support the system effectively during this challenging time. They have developed contracts to provide treatment to sexual offenders and, until the contract was transferred to community corrections, they provided jail diversion services. They recently laid off five staff without a reduction in services based on increased efficiency in how they manage their service array. In general, they have a positive reputation within the Lancaster community.

One of the chief challenges of the current structure is cost. The CMHC of Lancaster County provides services at a higher cost because it is constrained by the county employment system. This results in higher pay when compared to the staff of other CMHCs in Nebraska. They report that they are unable to cut salaries or benefits (based on county personnel regulations), so are not able to bring costs in line with other provider groups. While the salary and benefit package has allowed the CMHC to reduce the staff turnover that is usually part of the community mental health world, it has also slowed the introduction of new staff. Treatment and the approach to services have changed dramatically in the last ten to 15 years in the behavioral health field. The county based system of employment may also make it difficult to move staff along who are not functioning effectively and/or efficiently.

During interviews with community stakeholders, concerns were raised about wait times for services for individuals not experiencing a need for emergency care, the lack of a preventive approach to the use of crisis beds (crisis team approach), an insufficient commitment to the employment of consumers, a lack of outcome measures that support the added cost of the service provision using county employees, and a less than streamlined approach to screening, assessment, and access to treatment. Several interviewees reported that they believed the mental health system in Lancaster County is "broken." Many of these concerns are typical complaints from communities leveled at CMHCs and are to be expected. However, there appears to be room for improvement in the provision of behavioral health services in Lancaster County. While the current decision by the Lancaster County Board of Commissioners is a stressful one for consumers who receive services from the CMHC, the staff at the CMHC, and the service system in general, it allows for a new and more effective approach to services.

New Approach

A new approach to services should involve several changes. The first would be the addition of a crisis team to prevent individuals moving into the crisis unit if they could possibly be maintained in their home safely. The Lincoln Police Department has developed a version of this model by contracting with the Mental Health Association (MHA). MHA employees (consumers) provide an intervention to individuals who do not meet criteria for emergency protective custody, but who are in need of additional support. This approach is one that could be used to prevent individuals from having to enter into the crisis system. By receiving support that allows them to remain in their home, individuals' lives are less disrupted. MHA has also achieved the successful reduction of deep-end services use for some individuals through a version of respite at KEYA house.

Ideally, there should be an easy and open process to obtaining services. Multiple interviewees expressed frustration with the cumbersome process required by the CMHC to receive services. Often times these multi-step processes are developed to ensure that the individuals who are admitted to the center will benefit from the service array offered. Over time, these boundaries can become or be perceived as barriers to services. As staff and system become stressed or burned out, the doorway to care can become narrowed. Efforts should be made to provide a barrier-free approach that results in one of two outcomes. The first occurs when the individual in need of services meets the treatment criteria and is quickly moved into the system at the appropriate level. The second outcome should be the provision of a meaningful referral for individuals who do not meet the criteria to receive services at the CMHC but who are in need of a treatment intervention. For example, a meaningful referral could be achieved by making a call to set up a screening by a substance treatment agency for this individual.

The new approach to the provision of behavioral health services in Lancaster County should include the robust use of consumers. This can involve creating a program in-house or contracting with MHA and modeling the work they have done in the community. It is difficult to demonstrate a commitment to recovery without an active mix of employed and volunteer consumers (i.e., service users, service recipients) working within the service system.

Another addition would be the inclusion of primary care, preferably on site. Ideally, the provider of the Community Mental Health Center could provide space for the co-location of primary care staff a few days a week. While the FQHC has employed (through CenterPointe) a mental health staff person, an exchange of staff between the CMHC and the FQHC will increase the effectiveness of the integration of services that the FQHC is trying to implement. It will also provide onsite primary care services for clients and reduce the problem reported by the CMHC medical staff with kept appointments.

The CMHC of Lancaster County has a number of valuable staff members who have long term relationships with consumers in the community. The CMHC has traditionally been the provider of services for a number of individuals with needs that respond best to highly trained specialists (individuals with severe and persistent mental illnesses, sexual offenders). Based on this, it would not be in the best interest of either the consumers or the community to lose that level of skill. Individuals who work at the county-based CMHC should be given priority with interviews and those that have a history of skilled work should be hired by the new employer. Bringing this skilled group of employees will enable

the next provider of community based mental health services to make a smooth transition. The understanding would have to be for staff that salary and benefits may be changed and that there needs to be the development of a new approach to service provision.

While there are clearly changes that need to occur within the CMHC of Lancaster, the decision to change the management and venue of the service provider will have repercussions. The individuals who receive services at any CMHC are impacted by at least one severe disorder. Most of the individuals are struggling with multiple health issues and are managing complicated treatment regimens. Change is difficult for most people, but for those working to manage a complex set of health needs, change can be terrifying and destabilizing. Because of the lack of staff turnover, some individuals have had the same treatment team for years. The disruption of those relationships will have a large impact. When such a change occurs, the sooner the decision can be made, the better for the individual receiving services. If possible, any physical relocation should not occur until one year into the new contract. The goal is to stagger any changes so that they do not all occur at one time.

Recommendation

There are a number of concerns being voiced by stakeholders in the community about who would be "given" the CMHC service array to manage. With every interview, another group would be named as the one that "wanted" to take over the services or some portion of those services. Stakeholders voiced a desire that any group interested in becoming the service provider demonstrate effectively to the community that they are able to provide the necessary services, including a capability to innovate and move the system toward a more recovery based approach that integrates substance treatment and primary care as well as provide positive outcomes. Should one provider or group of providers be selected without some type of transparent process, it could be difficult to obtain buy-in from stakeholders and will impact the ability of the new system to succeed. Therefore, HMA recommends that an Invitation to Negotiate (ITN) process be employed. If possible, the CHE, and/or the new organization (see Section VI) should lead this process. The CHE would have the authority to administer the process as well as serving as the conduit for the County funds that have historically been contributed to the CMHC to remain in the system.

The ITN would provide a process for groups who are interested in providing this service array to demonstrate to the community that they possess the skills necessary to do so. The ITN provides a mechanism for the staff at Region V, County representatives, consumers, and other community stakeholders to develop an application that would outline the ideal system for Lancaster. The ITN allows the group to negotiate with more than one entity at a time to develop the service system that would best fit the needs of the community. The ITN will act as a guideline document that lays out major requirements and encourages innovation in the applications from the interested parties. The use of an ITN is a more open process with less of the rigid structure of a RFP (Request for Proposal).

Suggestions for the ITN include:

- Require partnerships to develop in the community and for those partners to submit a joint application (ideal partnership: mental health provider with a substance abuse provider, primary health care provider and consumer organization);
- Require co-location of primary care and behavioral health care staff;
- Demonstrate the active participation of consumers;
- Demonstrate a Trauma Informed approach to all services;
- Demonstrate active assessment and either onsite treatment or an active referral for substance treatment;
- Provide a plan for the transition of consumers from the CMHC of Lancaster to the new service provider;
- Demonstrate an active relationship with the Lincoln Police Department;
- Develop a crisis team with the goal of reducing the use of crisis beds and increasing the likelihood that individuals are able to remain in the community;
- Demonstrate an active use of supportive housing;
- Develop a relationship with the providers of Tribal services to ensure that they have access to services that are not available within their service system;
- Continue an effective working relationship with community corrections;
- Demonstrate efficiencies and a streamlining of the admission process for all levels of service, not simply emergency services;
- Through an interview process, all current staff at the CMHC should be prioritized for employment;
- All groups should be encouraged to apply for the ITN;
- Given the change to the Medicaid system (introduction of a managed care approach), the applicant must demonstrate the ability to work effectively with Medicaid and the new system as it develops;
- Full budget with FTEs needed to provide services; and
- Develop a health home model similar to the one being promoted by CMS for individuals with more than one chronic health condition.

Throughout the process, the staff at the CMHC deserves and should receive support in the management of the transition. They require support in two arenas. The first is the support needed to provide assistance to the individuals who receive services at the CMHC. A public statement must be made by the County and Region V that there is an absolute commitment to Lancaster County continuing to provide behavioral health services. One consumer who met with HMA put it best. Her hope at the end of the process was for each individual to receive the appropriate services that they needed for recovery. Until

this message is given and given consistently, the consumer community will remain fearful and reluctant to support any changes. The CMHC staff must be provided with as much information as possible and this information needs to be shared with the individuals they serve.

The second arena in which the CMHC staff needs support is with their own concerns and anxieties. Unless a venue is provided for them to receive information and voice their concerns, their anxieties will compound the fears of the individuals who currently receive services at the CMHC. Treatment for behavioral health issues is a challenging service to provide. When an entire system is destabilized, including the treatment provider, the challenge is made more difficult. The staff members are facing a possible loss of or change to their livelihood, professional identity, and future retirement. This is a stressful process and all efforts must be made to avoid any additional pressures.

Process

The development of the ITN should begin in January of 2012. The group should be representative of the community stakeholders, but one group must be designated to write and prepare the ITN. Given that Region V is the designated behavioral health authority and is the major contractor they should have lead on this project. The county should be part of the group of community stakeholders that will develop the ITN. An ITN that outlines the requirements for the service system should be created quickly (ideally within six to eight weeks) and then released to the community.

The applicants should be allowed six to eight weeks from the release to complete and return the applications. Given Lincoln's strong collaborative spirit, many natural partnerships already exist and could easily work together to create a strong service system and to translate that vision to an application. All applications should be scored within a two week period by a contract team chosen by Region V. Negotiations would be scheduled with the top two to three scorers. In the case of only one applicant, if that application is deemed acceptable, then negotiations can proceed more rapidly.

Negotiations should be time limited to ensure that the applicant who is chosen can begin to interview current employees immediately. All efforts should be made to retain as many of the current staff as possible. Any staff members who are not provided with an employment opportunity should receive job seeking support from the county. If there are frontline staff who will not continue with the agency, plans for transitioning their caseload to another individual must begin immediately and, ideally, result in a handoff from the original staff person to the new individual.

Ideally, the provider of behavioral health services within Lancaster County would be allowed to remain in the current facility for the first year of business. This would allow staff and consumers to adjust to the changes that will accompany a new provider group, some new approaches to service provision, and an increased focus on integrated care. In addition, this would allow for full consideration of accommodating mental health needs in the business plan to be developed for possible use of the Duteau Building by several health care organizations (see Section II).

IV. Medical Care Delivery Systems

In establishing a need for this study, a top priority is having a viable and well-functioning safety net for care of Medicaid and uninsured individuals. Communities that make a commitment to viewing the safety net as a cohesive whole, and do the hard work to coordinate services, funding, and technology, have the most success in making the most of limited resources. The CHE's priorities for HMA's review of the medical care delivery system are a sustainable safety net for the uninsured and Medicaid population, and the expansion of urgent care options for this population. This section addresses these priorities and also examines an important element of coordination, which is to invest in a robust health information technology (HIT) solution.

The Lincoln/Lancaster County area has begun to take some preliminary steps toward developing a comprehensive, integrated health care delivery system for the underserved populations in Lincoln, as described below. The community is now interested in moving further along the process to meeting the "triple aim" of providing better care for individuals, better health for populations, and reducing per capita health care costs.

As of the writing of this report, steps are being taken to implement the large Medicaid coverage expansion provided for in the Affordable Care Act (ACA), and to establish health insurance exchanges where other low-income individuals will be able to purchase health insurance with the assistance of subsidies. At the same time, significant features of the ACA are subject to legal challenges. The CHE recognizes that if the ACA is implemented as currently written, the medical care delivery system will need to be strengthened in order to have sufficient capacity to care for a large number of newly insured individuals who will be seeking care. The CHE also recognizes that even if the ACA is fully or partially dismantled, the local medical care delivery system will still need strengthening, in order to continue providing care to the Medicaid and uninsured population. The bottom line is that the delivery system needs to be strengthened irrespective of what happens with health reform at the national level.

A well-functioning safety net requires partnerships such as health systems and providers coming together to focus on the delivery of care for uninsured and Medicaid populations. Lincoln already has an infrastructure in place that includes a very committed medical society, numerous volunteers and existing partnerships such as ED Connections, People's Health Center, Health 360, Medication Assistance, and the Health Hub.

- ED Connections: This is an innovative local program based on identifying and focusing care management efforts on an at-risk population of approximately 4,500 frequent emergency department (ED) users. ED Connections has identified these patients over time and having thus defined the population, they are now able to receive notifications when a patient is seen and share clinical information with ED physicians. It would be ideal to expand this program, as it has been proven effective but there is additional need.
- People's Health Center: Founded in 2003 as part of a community effort to establish a medical home for the area's uninsured and underinsured, PHC has grown from one physician to a

provider staff that now includes 3 FTE family physicians, 4 FTE mid-level providers and several volunteers, in addition to a large dental practice. In 2010, PHC saw nearly 30,000 medical encounters and more than 8,000 dental encounters.

- Health 360: This is a comprehensive and collaborative program with many community partners and individual and corporate sponsors designed to assist people in getting the medical care they need. Administered by the medical society, the program links uninsured individuals with physicians willing to provide needed care. The success of this program is due to widespread buy-in not only to the concept but also to the need to adhere to protocols regarding referrals and diagnostic testing (e.g., no "wasted" referrals).
- Medication Assistance: The Medication Assistance Program of Lincoln (MAPL) helps individuals in need to access their prescription medications. Each year MAPL saves its clients millions of dollars by receiving free medications from national drug assistance programs. Program assistance is available for single individuals that make $19,000 a year or less and married couples that make $25,000 or less.
- The Health Hub: Health Hub staff help individuals in need to access assistance programs such as General Assistance, Medicaid or local programs by helping them complete all application paperwork and advocating for them until they are able to access care.

The overarching goal in strengthening the safety net would be for hospitals, private physicians, specialists and clinics to come together to close the current gaps in the safety net in Lincoln and Lancaster County and to create a seamless system of care. A key part of this effort would be to manage the care of the targeted population through implementation of an information technology (IT) system that would link the various providers together in a virtual system. (See Appendix C for recommendations for a comprehensive approach to Health Information Technology in Lincoln). Currently, there is little or no IT connectivity although some efforts are underway through the electronic Behavioral Health Information Network (eBHIN).

Strengthening the safety net should also include recognition of other gaps in care and services than those mentioned above, particularly related to the elderly, including what we heard regarding a community concern with discharging elderly patients from the hospital with inadequate support at home. In the past the organization providing elder care services in Lincoln/Lancaster County provided resources for supporting the elderly in their homes; however each year over the past few years they have had to make cuts which have affected the provision of care and service in this area. As noted in the Environmental Scan (Appendix B) by age, the largest rate of population growth is projected for the 65+ age group. By 2040, as a result of growth rates each decade from 2020 to 2040 of 51 percent, 38 percent and 15 percent, those that are 65 years of age and older will be 18 percent of the population, compared to 11 percent in 2010. It is important that care and services for the elderly be included in the community discussion and efforts to coordinate services.

A seamless system of care would also include the integration of behavioral health and primary care services. HMA believes that the planned change at the County level to divest from the Community

Mental Health Center creates the opportunity for new partnerships that can foster greater integration, and these issues are discussed in the section on mental health.

Local efforts to better coordinate services (Health 360, the Health Hub) deserve a great deal of credit for making progress toward targeting the available resources. However, implementation of a truly integrated health care delivery system requires commitments and representation from community leaders: hospital/health system professionals, providers, the business community, county board, state politicians, law enforcement, consumers, the public health department, and volunteers in Lincoln/Lancaster County. A proposal for a governing body to make sure these efforts stay on track is discussed in the section on governance. Specific recommendations related to the delivery system are outlined below.

Recommendations

Establish an organization tasked with delivery system coordination responsibility. There are a number of interrelated tasks that, when viewed as a whole, will foster the creation of a seamless safety net medical care delivery system. These include, but are not limited to, establishing criteria for funding (see Sustainability section), expanding the capacity of PHC (see FQHC section), and forming new partnerships for the provision of mental health services (see Mental Health section). It is essential that a cross-cutting group of community leaders take on responsibility for "connecting the dots" and making sure that the various efforts that are under way are coordinated in such a way that they support the development of an integrated system. The organization discussed in the Governance section should take on this responsibility.

Explore creation of a safety net Accountable Care Organization (ACO). Accountable Care Organizations (ACOs) commit to taking responsibility for providing care to a defined population. To date, the primary focus in ACO models has been the Medicare population, and the federal government is in the process of promulgating rules governing this model. Communities across the country have recognized that the ACO model of coordination offers promise for care of the Medicaid and uninsured population, and have begun to form safety net ACOs. HMA recommends that the Lincoln community work toward establishing an ACO model of care and approach the Center for Medicare and Medicaid Innovation (CMMI) for financial support of these efforts (see Sustainability section).

Pursue the acquisition and implementation of an information technology (IT) solution. A crucial element of having a fully coordinated delivery system is an IT system. This recommendation, and the steps involved, are discussed in detail in Appendix C.

V. Sustainability: Short and Long-Term Financing Strategies

Introduction

A major goal of this project was to identify strategies to build a stable, sustainable base of financial support for the safety net in the long term. While it is clear that there is a great spirit of volunteerism in the Lincoln/Lancaster County region, it is equally clear that more support is needed for the providers who care for the indigent and uninsured. Several issues/challenges highlight this reality, including:

1. The county's plan to divest itself of the Community Mental Health Center;
2. The unsustainable cost of the General Assistance program, especially in the context of the public discourse about reducing the size of local government;
3. The financial and capacity challenges experienced in recent times by the People's Health Center; and
4. The growth in activity and prominence of efforts to fill service gaps, not all of which are well-coordinated.

Guiding Principles

Efforts of this magnitude need to be guided by a set of principles the community can agree upon. These should be regularly revisited and participants should be reminded of them as part of a strategy to maintain buy-in when difficult decisions have to be made. HMA proposes that the Lincoln community start with this set of principles.

Guiding Principle 1: *To the greatest degree possible, efforts should be made to identify new sources of funding.*

When looking for new sources of funding, the first choice is invariably federal funding. Unlike local sources that depend upon philanthropy or property taxes, where it is much harder to generate increased support, there are multiple ways in which communities can leverage increased federal funding without the need to make difficult decisions at the local level. The challenge for Lincoln in this regard, however, is that in many cases the enhanced federal funds cannot be accessed without the cooperation of the State. It was made amply clear to HMA, both by the State and other informed stakeholders, that there is a great deal of reluctance on the part of the current State administration to seek new sources of federal funding. Our recommendations take this into account but it is still wise policy to remain informed about potential new federal revenue sources, in case the outlook should ever change.

Guiding Principle 2: *Funding already in the system should be optimized.*

HMA observed that there is a great deal of support, both monetary and in-kind, that is devoted to the care of the indigent in Lincoln. The crucial challenge is to secure community agreement to work together to ensure that the support is directed to areas where it can do the most good, and is distributed according to some sort of a comprehensive strategy. HMA's recommendations address the issue of targeting and optimizing the funding that is already going into the system.

Guiding Principle 3: *All key players should have "skin in the game."*

As explained in other sections of the report, HMA is recommending that responsibilities for certain key activities (e.g., mental health and general assistance medical care) be transitioned to other parties. However, it is crucial that the funding that has historically been allocated to these functions follow along and remain in the system. Both the financing and the governance recommendations relate back to maintaining the support and the engagement of the County throughout the transition and into the future.

Recommendations Related to Establishing an Overarching Strategy

In an environment of high need and limited resources, it is more important than ever to be strategic about funding. This means that funding should be targeted in such a way that it supports, rather than detracts from, the ability of the safety net to operate in a cohesive and cooperative fashion. In addition, agreements that preserve the system's current funding should be put into place. The three recommendations presented below are based on these ideas as well as the principles above.

Institute an up-front agreement that there be maintenance of effort. As discussed elsewhere in this report, plans are under way for the County to divest itself of the CMHC. In addition, HMA is recommending that there be a change in the delivery of health care services to General Assistance program enrollees. Neither of these changes should take place, however, without an up-front agreement as to maintenance of effort. The County funds that support local efforts should continue to be available to the system even as the structure changes. In fact, by making the funds available the funders will be able to leverage additional dollars to support a more efficient and effective system, in that the funds can be used as match as described in the discussion about Medicaid funding.

Establish a Funding Committee. The Governance section of this report lays out a structure for community leaders to implement and monitor progress on the recommendations outlined in this report. A key part of that structure should be a Funding Committee whose assignment is to foster coordination in support and giving toward the various efforts that take place with respect to the safety net. This committee should provide a venue for the CHE, hospitals, and other donor organizations to share with one another their priorities and funding plans, and also to compare those plans with the expectations and criteria around where funds should be targeted, as discussed below.

Articulate a set of expectations related to eligibility for funding. One of the first activities of the Funding Committee should be to articulate a set of criteria by which the major donors agree to adhere when making decisions about which efforts in the community to support. The purpose of this recommendation is to foster not only better coordination between funders, but also to begin to redirect funding to safety net players who agree to be part of a more coordinated system. Criteria can include such factors as agreement to pursue applicable program eligibility for patients, agreement to adhere to referral protocols, and cooperation with established community efforts that are aimed at coordination of available resources. These criteria should be discussed and publicized so that they have maximum community impact. HMA does not mean to suggest that it is possible to control the actions of every

individual donor or volunteer; however, it is appropriate to provide a reasonable basis that donors can use to make wise decisions about where to direct their support.

Recommendations Related to Health reform

The Affordable Care Act (ACA) includes provisions that make new funds available for certain purposes. One such purpose is for the support of innovative efforts to improve care. Another is for enhanced care coordination services for Medicaid enrollees with chronic conditions. Both of these are discussed below.

Apply for funds from the Center for Medicare and Medicaid Innovation (CMMI). The CMMI, which is a part of the Center for Medicare and Medicaid Services (CMS), is charged with the distribution of $10 billion in federal funding to support innovative efforts that support the triple aims of improving the experience of care, improving the health of populations, and reducing the per capita costs of health care. Lincoln has a unique and integrated approach to coordination of resources for the low-income and uninsured, and HMA has recommended some approaches to building upon this unique model. For optimum results, some new infrastructure, including health information technology, would be required. We recommend that the community approach the CMMI with a proposal for support of these ongoing and new efforts. Unlike other sources of federal funding, these grants do not require an application from or the support of the State; this is an advantage to the Lincoln community as the State is clearly not interested in pursuing additional federal funds.

At the time this report was being drafted, CMMI had just made a major public announcement regarding distribution of funding. According to CMMI staff, the organization will now take applications from interested parties, with a mandatory letter of intent due on December 19, 2011, and applications due January 27, 2011. Some highlights of the announcement are as follows:

- Any organization, entity or consortium can apply but states are excluded from applying
- Applications must focus on Medicare, Medicaid and/or CHIP populations
- CMMI will not consider projects that replace funds for a project currently funded by the federal or state governments
- Organizations may submit multiple applications
- Each proposal should address all three of the triple aims: improved quality, population health and cost savings/efficiency
- Proposals can address identifying, testing and/or spreading a model of care (e.g., the proposal may address diffusion of a current model to a new population or targeted group)
- Proposals need to directly address care of a targeted population (so proposals to fund training programs by themselves would not be acceptable, neither would clinical trials or research protocols)
- Priority will be given to proposals that can be rapidly implemented (with a six month maximum period for implementation, and the shorter the time frame the better)

- Although the projected funding levels were listed between $1 million to $30 million over three years, CMMI would consider other proposals that were smaller than $1 million

Analyze the Health Home opportunity as a model of interest for the Lincoln community. Another funding opportunity included in the ACA (Section 2703) gives states the option to draw down federal funds at a 90% matching rate to be used for the provision of care coordination services for individuals with two or more chronic conditions, or with one chronic condition and risk of a second, or with a serious mental illness. Unlike the CMMI funding, this funding can only be accessed by the State for a local community, and HMA has ascertained that the State does not intend to pursue this opportunity. However, given that the State perspective could change and this is a significant opportunity, HMA believes it makes sense to at least understand the provision and its potential applicability.

Recommendations Related to Medicaid Funding

Part of HMA's charge was to identify new sources of Medicaid funding that could be accessed with or without the cooperation of the State of Nebraska. Toward that end, HMA has identified some strategies that would increase funding flowing into the local community. As discussed above with regard to maintenance of effort, HMA assumes that County funds that will become available when services are shifted will stay in the system; these funds represent potential sources of match.

Establish an upper payment limit for physician services to support hospital-employed psychiatrists. Current Nebraska Regulations at 471 NAC 18-006.02 describe the specifics of the existing supplemental payment program for eligible physicians and other practitioners. As currently configured, only practitioners that are acting in the capacity of an employee or contractor of the University of Nebraska Medical Center (UNMC) or its affiliated medical practices; UNMC Physicians and Nebraska Pediatric Practice, Inc. are eligible for the enhanced Medicaid payment provisions. This policy allows for the use of the public funds from UNMC to be used as the non-federal share of supplemental payments to eligible physicians. Extending the policy to include additional physician groups supported with local public funds other than UNMC is well within the current standards for federal approval. Alternatively, the scope of the UNMC affiliations could be extended beyond those now covered. This too would require a change of the Nebraska rules, as well as approval from CMS.

In developing the original policy, the essential components were that funds need to be derived from a true "public" source. Further, the funds used to support FFS payments to physicians must be retained by the physician in compliance with the requirements of the 1991 Medicaid Voluntary Contribution and Provider-Specific Tax Amendments (P.L. 102-234). In addition to the FFS component, local public funds may also be used to support Medicaid payments made through HMOs. Current federal standards and the existing Nebraska rule establish the supplemental payment as the difference between existing Medicaid payment rates and the average rate paid by commercial insurers. This amount varies by type of service and be geographic location but is generally about equal to existing payments. For example, for a service being paid $100 by Medicaid, the supplemental payment would be $100 with local funds providing about $45 of that payment for a net of $55 in new money.

Secure funds through a hospital upper payment limit program. Federal regulations allow for Medicaid payments to hospitals at levels higher than currently supported by the Nebraska budget. A number of states have implemented hospital provider tax programs as a means of supplementing the support from the legislature with funds derived from hospital taxes. A hospital tax would be configured similar to the nursing home tax that was passed in the 2011 legislative session over the governor's veto.

Based upon the September 15, 2011 Nebraska Medicaid Annual Report, the gap between existing FFS payments and the maximum that CMS would allow (the UPL) is in the range of $40M to $50M. Should Nebraska follow the precedent of other states and include UPL payments within the capitated amounts paid to HMOs, the opportunity for additional payments is even larger. Nebraska Medicaid policy allows for limited amounts to be paid to hospitals through Medicaid Disproportionate Share Hospitals (DSH) payments as an offset against local funds supporting hospital services for General Assistance patients.

The support for hospital UPL payments in Lincoln could be in the form of local funds sent to the State through an Intergovernmental transfer (IGT) or from a provider tax. One option for a provider tax is a Lancaster County specific hospital tax. While most hospital tax programs involve a statewide assessment, the City of Philadelphia implemented a local tax in 2009 that was approved and is being used to support Medicaid payment increases isolated to a single location. One of the benefits of CHE's involvement in the new organization (Discussed in Section VI) is that it can serve as a conduit for the non-federal share.

Leverage additional funds through an agreement between LMEP and PHC. As described in the FQHC section, combining forces with the Lincoln Medical Education Partnership (LMEP) would create a flow of new funds that would not require the cooperation of the State of Nebraska. Federal law dictates the payment level for FQHCs, and making the LMEP clinic a satellite of PHC would automatically qualify LMEP visits by Medicaid patients for this same payment rate.

VI. Governance Options

If the community is going to prioritize the development of a sustainable, seamless system of care for Medicaid and the uninsured, then it will be necessary to establish an ongoing method for making action plans, measuring progress, making needed adjustments, and assuring that the system works. Avoiding duplication of effort and unnecessary meetings is crucial to maintaining high level of buy-in from stakeholders.

The leadership group that is established should have broad representation, but be small enough to get things done. It must also have the capacity to develop actual authority over resources, or at least develop enough influence to be able to have some say in how resources are allocated. Last but not least, it should be able to balance the needs of governments as payers, providers, and the community at large. We recommend utilizing existing resources wherever possible.

The cornerstone of HMA's governance recommendations is for CHE to create a new organization charged with responsibility for progress and coordination in the safety net. The purpose would be to strengthen the safety net's ability to care for vulnerable populations. The CHE and the new organization would then have the leverage to consolidate and manage funding that is currently slated to be redirected (e.g., CMHC and GA funds) in a coordinated fashion. In addition, the new organization should be chaired by a CHE representative and should be charged with implementing the recommendations contained in this report. HMA suggests the following membership for the board of the new organization:

- Lincoln -Lancaster County Health Department
- BryanLGH Hospital (CEO and a representative of the medical staff)
- St. Elizabeth Regional Medical Center (CEO and a representative of the medical staff)
- Lancaster County Medical Society (two representatives)
- Lincoln Medical Education Partnership
- People's Health Center
- Rotating member from a free clinic
- CenterPointe
- Region V Mental Health
- Two community members selected at large

Committees

Committees with specific and well-defined tasks assigned to them will be key to moving the agenda forward. The need for specific committees may shift over time, but at the least, the following two committees should be established at the outset.

- **Medical Care Delivery System:** This committee would be charged with leading the effort to close gaps in the delivery system. HMA envisions that the specific tasks would shift over time based on immediate and long-range priorities, such as development of a coordinated IT solution, establishment of a safety net ACO, etc.
- **Funding:** This committee (also discussed in the Sustainability section) would be charged with fostering coordination in support and giving toward the various efforts that take place with respect to the safety net. This committee should provide a venue for the CHE, hospitals, and other donor organizations to share with one another their priorities and funding plans, and also to compare those plans with the expectations and criteria around where funds should be targeted. HMA suggests that a rotating chair be established, with major funders such as the CHE and hospitals taking turns in leading this effort.

In addition, the new organization should employ a CEO with a small staff to take care of administrative details and to collect, review, and disseminate metrics that demonstrate success or failure of the safety net. In order to achieve maximum credibility, the new organization may wish to consider a physician with a business degree or similar qualifications for the role of CEO.

Conclusion

In terms of providing care to underserved populations, the Lincoln Community has a great many important assets, not the least of which is a spirit of volunteerism that has begun to close some gaps in care. However, change and uncertainty loom on the horizon, and all signs point to the need for a comprehensive strategy to address the patient care system, mental health, and funding. HMA has recommended both a set of short and long term strategies to build a more coordinated local system, and a governance structure for taking charge of implementation. It is our hope that this document will serve not only as a source of information about the current system, but also a road map that provides future direction.

Appendix A: Community Health Endowment - Nebraska Interviewee List

Name	Title	Organization
Joan Anderson	Executive Director	Lancaster County Medical Society
Nicole Anderson, MD	Medical Director and Vice President, Board of Directors	Clinic With a Heart
Wende Baker	Network Director	Electronic Behavioral Health Information Network (eBHIN)
Mary Barry-Magsamen	Director	St. Monica's, Behavioral Health Services for Women
Dennis Berens	Director	Nebraska Office of Rural Health
Chris Beutler	Mayor	City of Lincoln
Wendy Birdsall	President	Lincoln Chamber of Commerce
Darcy Blayney	Data Coordinator, Cardiology	BryanLGH Medical Center
Georgia Blobaum	Director of Operations	Advanced Medical Imaging
Heath Boddy	Executive Director	Nebraska Health Care Association
Kit Boesch	Administrator	Lancaster County, Human Services
Patty Bohart, MD	Psychiatrist	Community Mental Health Center
Rick Bohaty	Director, Information Technology	Saint Elizabeth Regional Medical Center
Patrick Borer	Assistant Chief of Support Services	Lincoln Fire and Rescue
Brian Bossard, MD	Medical Director	BryanLGH Medical Center
Kim Brodersen	Supervisor, Mental Health Division	Lancaster County, Corrections
David Brown, DDS	Executive Associate Dean, Academic Affairs	University of Nebraska Medical Center, College of Dentistry
Kathy Byorth	Licensed Mental Health Professional	People's Health Center
Kathy Campbell	Vice President of Patient Care Services/Chief Nursing Officer	BryanLGH Medical Center
Senator Kathy Campbell	Senator	Nebraska Legislature
George Carr	Chief Information Officer	BryanLGH Health System
Jennifer Carter	Director, Public Policy and Program Director/Staff Attorney, Healthcare Access Program	Nebraska Appleseed – Center for Law in the Public Interest
Chris Caudill, MD	Volunteer	Clinic With a Heart and People's Health Center
Gary Chalupa	County Veterans Service Officer	Lancaster County, Veteran Services/County General Assistance

Vivianne Chaumont	Director, Division of Medicaid and Long Term Care	Nebraska Department of Health and Human Services
Carolyn Cody, MD	Vice President, Medical Affairs	BryanLGH Medical Center
Carol Crumpacker, PhD	Director	Child Guidance Center
Jon Day	Executive Director	Blue Valley Behavioral Health
Vicky Duey	Executive Director	Four Corners Health Department, York NE
Walter J. Duffy, MD	Psychiatrist, CEO/Owner	Premier Psychiatric Group, LLC and Premier Psychiatric Research Institute, LLC
Timothy Durham, DDS	Assistant Dean for Patient Services & Quality Officer	University of Nebraska Medical Center, College of Dentistry
Kerry Eagan	Chief Administrative Officer	Lancaster County, Board of Commissioners
Joyce Ebmeier	Vice President, Strategic Planning	Tabitha Health Care Services
Christine Emler, MD	Associate Chief of Medicine	VA Nebraska-Western Iowa Health Care System
Shannon Engler	Director, Mental Health Services	BryanLGH Medical Center
Julie Erickson	Lobbyist	American Communications Group
Kim Etherton	Executive Director	Lancaster County, Community Corrections
Keith Fickenscher	Administrator	Lancaster Manor
Roger Fisher, DDS	Volunteer Dentist	Clinic With a Heart
Julie Fisher-Erickson	Clinical Supervisor	Lutheran Family Services
Jane Ford Witthoff	Director	Public Health Solutions District Health Department, Crete NE
Steve Frederick	Division Manager, Health Data & Evaluation	Lincoln-Lancaster County Health Department
Richard Furasek	Assistant Chief of Operations	Lincoln Fire and Rescue
Charles Genrich, DDS	Volunteer Dentist	Clinic With a Heart
Becky Gould	Executive Director	Nebraska Appleseed – Center for Law in the Public Interest
Barbara Grant	Director, Circle of Care	Indian Center, Inc.
Alan Green	Director	Mental Health Association of Nebraska
Russ Gronewold	Chief Financial Officer	BryanLGH Health System
Martha Hakenkamp	Program Director	Aging Partners
Judith Halstead	Director	Lincoln-Lancaster County Health Department
Kelley Hanau	Nurse Practitioner	People's City Mission - Free Medical Clinic
Susan Hancock	Consumer Specialist	Region V Systems
Topher Hansen	Executive Director	CenterPointe, Inc.
George Hansen, MD	Physician	Autumn Ridge Family Medicine

Stephanie Harley Eells	Project Manager	Community Health Endowment
Teresa Harms	Executive Director	Clinic With a Heart
Pat Hoidal	Director of Performance Improvement and Risk Management	Saint Elizabeth Regional Medical Center
Tom Hoover	Program Manager	ED Connections
Larry Hudkins	County Commissioner	Lancaster County Board of Commissioners
John Huff	Fire Chief	Lincoln Fire and Rescue
Patrick Hurlbut, MD	Physician	Prairie Orthopaedic
C.J. Johnson	Regional Administrator	Region V Systems
Kim Joy	Advanced Practice Nurse	People's Health Center
Padmanabha Raju V.S. Kakarlapudi	Public Health Epidemiologist	Lincoln-Lancaster County Health Department
Kim Kempkes	Consumer	Community Mental Health Center
Corrie Kielty	Director, Clinic Operations	People's Health Center
Ardi Korver	Director, Continuing Education	Region V Systems
Jason Kruger, MD	ED Physician, Lancaster County Medical Society, President	Saint Elizabeth Regional Medical Center
Doug Kucera	Vice President Finance & CFO	Saint Elizabeth Regional Medical Center
Elton Larson	Budget Analyst	State of Nebraska, Administrative Services – Budget Division
Michelle Lemon	Psychiatric Nurse Practitioner, Director of Clinical Services	Premier Psychiatric Group, LLC
Karla Lester, MD	President, Board of Health and Executive Director, Teach a Kid to Fish	Lincoln-Lancaster County Board of Health and Teach a Kid to Fish
Charlotte Liggett	Vice President, Strategy	Catholic Health Initiatives of Nebraska
Alan Linderman, MD	President/CEO	Lincoln Medical Education Partnership
Shane Ludwig	Director, Information Technology	People's Health Center
George Lyford	Staff Attorney, Health Care Access Program	Nebraska Appleseed – Center for Law in the Public Interest
Kara Magdanz	Employment Specialist	Mental Health Association of Nebraska
Sabyasachi Mahapatra, MD	Medical Director	People's City Mission – Free Medical Clinic
Maryam Mahmoodian, MD	Medical Director	People's Health Center
Andrea Mason	Manager, Community Health Services	Lincoln-Lancaster County Health Department
Gwendy Meginnis	Dental Division Manager	Lincoln-Lancaster County Health

		Department
Sherrie Meints	Business Manager	Lincoln Fire and Rescue
Dennis Meyer	County Budget Director	Lancaster County, Budget & Fiscal
Ed Mlinek, MD	Emergency Department	BryanLGH Medical Center
Kim Moore	President & CEO	Saint Elizabeth Regional Medical Center
Sara Morris	Hospitalist Coordinator, Inpatient Physician Associates	BryanLGH Medical Center
Kasey Moyer	Associate Director	Mental Health Association of Nebraska
Suzan Mulligan	Manager, Care Management	BryanLGH Medical Center
Mike Myers, MD	Program Director, Lincoln Family Medicine Program	Lincoln Medical Education Partnership
Jim Naeve	Business Manager & Coordinator of Practice Management Curriculum	Lincoln Medical Education Partnership
Gerry Oligmueller	Budget Administrator	State of Nebraska, Administrative Services – Budget Division
Trish Owen	Deputy Chief of Staff	City of Lincoln, Mayor’s Office
Travis Parker	Deputy Director	Community Mental Health Center
David Paulus, MD	Chief Medical Officer	People’s Health Center
June Pederson	Director	Aging Partners
Lisa Peterson, MD	Past President, LLCHD Board of Health	Northrup Internal Medicine & Primary Care
Michelle Petersen, MD	Pediatrician	Capital City Pediatrics
Brendon Polt	Director, Government Relations	Nebraska Health Care Association
Maria Prendes Lintel, PhD	Clinical Psychologist	The Wellness Center, P.C.
Ruth Radenslaben	Director, Emergency Services	BryanLGH Medical Center
Libby Raetz	Vice President of Nursing	Saint Elizabeth Regional Medical Center
Robert Rauner, MD	Director; Chair, Public Health Committee at Nebraska Medical Association; Clinical Coordinator, Wide River Technology Extension Center	Partnership for a Healthy Lincoln, Nebraska Medical Association, and Wide River Technology Extension Center
Thomas Rauner	Primary Care Office Director	Nebraska Office of Rural Health
Jane Raybould	County Commissioner	Lancaster County Board of Commissioners
Arathi Reddy, DDS	Dental Director	People’s Health Center
Laura Redoutey	President	Nebraska Hospital Association
Sanat Roy, MD	Medical Director, Psychiatrist	Community Mental Health Center

Kimberly A. Russel	President/CEO	BryanLGH Health System
Arif Sattar, MD	General Assistance Medical Clinic Provider	Lincoln-Lancaster County Health Department/Nebraska House Call Physicians, P.C.
Michelle Schindler	Director	Lancaster County Youth Services Center
Deb Schorr	Chair	Lancaster County Board of Commissioners
JoAnne Scott	Clinic Administrator	Nebraska Urban Indian Health Coalition, Inc. – Medical Clinic
Todd Searls	Director	Wide River Technology Extension Center
Lori Seibel	President/CEO	Community Health Endowment
Dean B. Settle	Executive Director	Community Mental Health Center
Deb Shoemaker	Executive Director	People's Health Center
Ron Sorensen	Director, Strategic Planning and Project Management	Region V Systems
William Spaulding, PhD	Faculty; President, Nebraska Psychological Association	University of Nebraska - Lincoln-Department of Psychology
Les Spry, MD	Physician	Lincoln Nephrology & Hypertension
Heidi Stark, DDS	Member	Lincoln-Lancaster County Board of Health
Steve Steinkuehler, PhD	Chief Operations Officer	Premier Psychiatric Group, LLC
Regina Sullivan	Health Outreach Specialist	Clyde Malone Community Center
Mary Sullivan	Director, RAISE Early Treatment Program and Adjunct Research Specialist	University of Nebraska-Lincoln, Department of Psychology
Pat Talbott	Consumer/Peer Counselor	Community Mental Health Center
Phil Tegeler	Executive Director	Cornhusker Place
Linda Tegler	Case Management	BryanLGH Medical Center
Marjorie Theel	Health Services Supervisor	Lincoln Public Schools
Gretchen Thornburg	Finance Director	People's Health Center
Mike Thurber	Director	Lancaster County Corrections
Steve Uetrecht	Practice Manager	People's City Mission - Free Medical Clinic
Cary Ward, MD	Chief Medical Officer	Saint Elizabeth Regional Medical Center
Ryan Whitney, MD	Board Member	Partnership for a Healthy Lincoln
Larry Widman, MD	Psychiatrist	BryanLGH Health System, Heartland Psychiatry
Joe Wright	Captain	Lincoln Police Department
Kristi Zerr	Director of Nursing	CenterPointe, Inc.
Jan Zoucha	Board Member	Partnership for a Healthy Lincoln

HMA Steering Committee		
Name	**Title**	**Organization**
Georgia Blobaum	Director of Operations	Advanced Medical Imaging
Charlene Gondring	Project Observer, Trustee	Community Health Endowment
Judith Halstead	Director	Lincoln-Lancaster County Health Department
Vicki Huff	First Vice President and Trust Marketing Officer	Union Bank and Trust
C.J. Johnson	Regional Administrator	Region V Systems
Britt Miller	Project Observer, Treasurer/Trustee	Community Health Endowment
Travis Parker	Deputy Director	Community Mental Health Center
Michelle Petersen, MD	Pediatrician	Capital City Pediatrics
Libby Raetz	Vice President of Nursing	Saint Elizabeth Regional Medical Center
Kimberly A. Russel	President/CEO	BryanLGH Health System
Lori Seibel	President/CEO	Community Health Endowment
Les Spry, MD	Physician	Lincoln Nephrology & Hypertension
Michael J. Tavlin	Project Observer, Trustee	Community Health Endowment
Joan Anderson	Executive Director	Lancaster County Medical Society

People's Health Center - Board of Directors
Name
Susanne Blue, Chair
Kathy Campbell
Janet Coleman
Jill Jensen
Joan Anderson
Wayne Cramm
Paula Guerrero

Community Health Endowment – Board of Trustees
Name
Charlene Gondring
Judith Halstead
Britt Miller
Kim Moore
Maria Prendes Lintel, PhD

Kimberly A. Russel
Michael J. Tavlin
Doug Ganz
Alison Larson
Rick Poore
Tina Udell
Loren Mestre-Roberts
Michael Molvar, DDS
Chuck Wilson, MD
Tom Beckius

Appendix B: Environmental Scan

HMA conducted an environmental scan of Lancaster County demographics, health outcomes, risk factors, prevention, access to services, and utilization. HMA relied on well-known national sources of data, as well as data provided by the county, health care providers, and other community stakeholders. We identified the following findings:

Demographics

- Lancaster County experienced robust population growth in the past decade, with very high growth in minority populations. Double digit growth is expected to continue over the next four decades. By age, the largest rate of growth is projected for the 65+ age group.
- Lancaster County enjoys an extremely low unemployment rate compared with the nation and average income measures.
- The County's small minority population has high poverty rates.

Health Outcomes

- Lancaster County has higher infant mortality rates for black and Hispanic babies. While these have declined significantly in recent years, the infant mortality rate among blacks remains higher than that for whites and Hispanics.
- While the infant mortality rate for white non-Hispanics, considering all causes of death, is favorable to the US and peer counties,, Lancaster had a higher rate of death for white infants under the age of one from complications of pregnancy based on 2003-2005 data. (See Figure 8 below.)
- For the 25 to 44 age group, the percentage of deaths caused by suicide exceeds that for injuries and cancer. Overall mortality from suicide is higher than the U.S. average, but, in 2009, was at its lowest rate in eight years.
- For the 45 to 64 age group, cancer is the leading cause of death for both black and white populations, accounting for about 40 percent of deaths in both populations in the age range. The overall rate of death from cancer decreased in 2008/2009.
- For the 65+ age group, heart disease and cancer account for about 25 percent and 22 percent of all deaths, respectively. The overall death rate from Chronic Heart Disease is low compared to peer counties and has dropped significantly from 2002 to 2009.

Risk Factors

- Lancaster County residents, generally, are less likely to report fair or poor health and more likely to report moderate or vigorous exercise than the state and U.S. average. They also have a lower rate of obesity. However, compared to peer counties, Lancaster lies in the mid to high range on these risk measures.
- Diabetes rates have been trending upward.

- Lancaster County residents report higher rates of alcohol consumption than the state or U.S. averages.
- Lancaster current smoker trends fell significantly from 2008 to 2010.

Prevention

- Lancaster County's rates of preventive services are, for the most part, comparable to rates for the state and the nation.
- The county's steady increase since 2005 in prenatal care during the first trimester of pregnancy experienced a significant decrease in 2010. However, steady and dramatic growth in the number of women with ten or more prenatal visits continued in 2010.
- Since 2002, the county's colon screening rate is on the increase.
- Since 2000, Lancaster County has seen an increase in reported HIV cases

Access to Coverage and Services

- The percent of uninsured adults aged 18 to 64 has increased steadily since 2005, with an overall estimated uninsured rate of 11 percent in 2009. Almost 20 percent of Individuals aged 18 to 34 are uninsured, the highest rate among all age groups.
- The number of primary care physicians per 100,000 (85) and the number of dentists per 100,000 (132) are comparable to or higher than peer counties.

Provider Services and Utilization

- While the two hospitals – BryanLGH and St. Elizabeth Regional Medical Center – serve a geographic area extending beyond the county, Lancaster County residents account for most of the patients served: 68 percent to 72 percent of inpatients, and 79 percent to 84 percent of outpatients.
- Both hospitals have similar public payer distributions for inpatient services. Medicaid covers approximately 8 percent of county residents. Medicaid accounts for 14 percent of combined IP admits and discharges and 16 percent of combined patient days in the two hospitals.
- Both hospitals have similar percentage of patients that are uninsured. Approximately 11 percent of county residents lack health insurance coverage. Self-Pay accounts for about 5 percent of combined admits/discharges and 5 percent of combined patient days in the two hospitals.
- The most common reason (determined by DRG frequency) for admission to St. Elizabeth is delivery of babies. This accounts for nearly 10 percent of all stays, 25 percent of Medicaid stays, and 14 percent of Self Pay stays. More than half of the top 10 DRGs for Medicaid and Self Pay stays are delivery-related.
- The most common reason (determined by DRG frequency) for admissions to BryanLGH is psychosis. This DRG accounts for about 9 percent of all stays, 19 percent of Medicaid stays, and 19 percent of Self Pay stays. For both Medicaid and Self Pay, four of the top 10 DRGs relate to mental disorders or substance abuse. The remaining six for Medicaid are delivery-related.

- Medicare patients account for 14 percent of patients using the ER at BryanLGH and for 20 percent of visits. Medicaid accounts for 26 percent of patients and 28 percent of visits. Self-Pay accounts for 17 percent of both patients and visits.

County Population

Lancaster County is an area of about 839 square miles, with a population density in 2010 of 340 per square mile. Lancaster County has the second highest population of all counties in the state (only Douglas County is higher). Its population grew over twice the rate, as did the state's population, in the decade between 2000 and 2010 (following table).

TABLE 1: POPULATION BY AGE RANGE: 2010 CENSUS

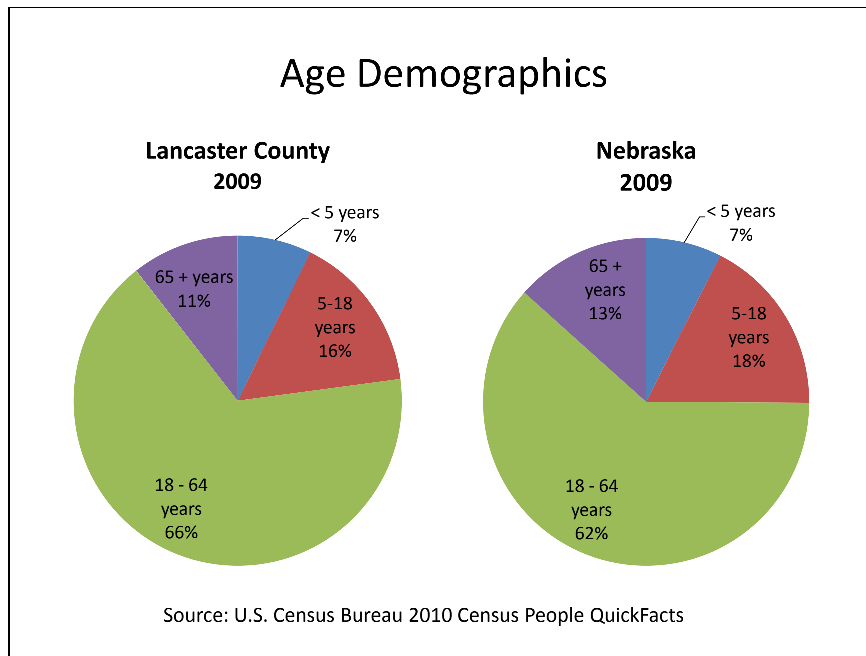
	Lancaster County	Nebraska
Population, 2010	285,407	1,826,341
Population, % change, 2000 to 2010	14.00%	6.70%
Population, 2000	250,291	1,711,265
Persons under 5 years old, %, 2009	7.30%	7.50%
Persons under 18 years old, %, 2009	22.90%	25.10%
Persons between 18 and 64 years, 2009	66.5%	61.5%
Persons 65 years old and over, %, 2009	10.60%	13.40%

Source: U.S Census 2010: http://2010.census.gov/2010census/. By age: People QuickFacts 2010.

Age

Compared with the state, Lancaster County has a slightly lower percentage of children 18 and younger and seniors 65 years and older. Lancaster County has a higher percentage of working age adults 18-64 years of age than the state as a whole.

FIGURE 1



Population Projections

The *Lancaster County Population Projections: 2010 to 2040 Summary Report* was prepared by the University of Nebraska Omaha, Center for Public Affairs Research for the Lincoln Lancaster County Planning Department. The report contained population projections to 2040 for Lancaster County under

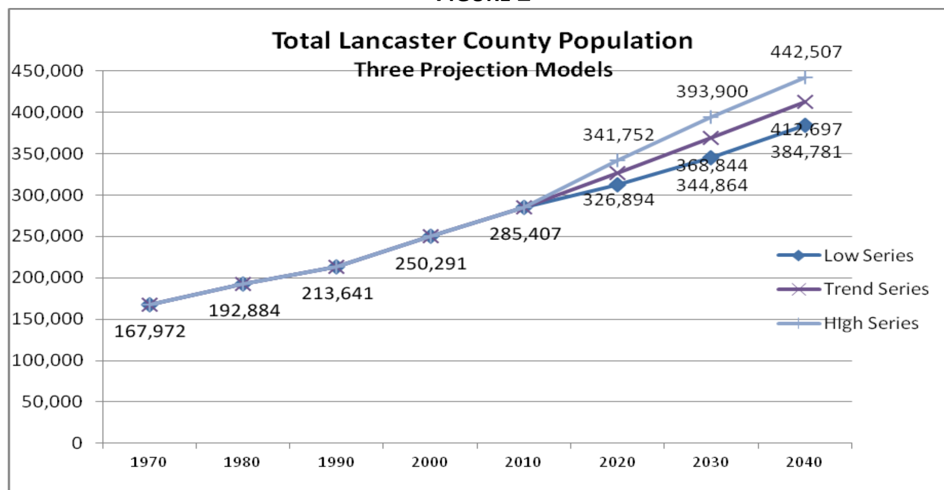
three scenarios. All three scenarios indicate that Lancaster County can expect the double-digit population growth every ten years to continue.

TABLE 2: LANCASTER COUNTY TOTAL POPULATION - % GROWTH BY DECADE

	Census	Census	Census	Census	Proj.	Proj.	Proj.
	1980	1990	2000	2010	2020	2030	2040
Low Series	15%	11%	17%	14%	9%	11%	12%
Trend Series	15%	11%	17%	14%	15%	13%	12%
High Series	15%	11%	17%	14%	20%	15%	12%

Source: Lancaster County Population Projections: 2010 - 2040
Summary Report by University of Nebraska Omaha, Center for Public Affairs Research May 2010.

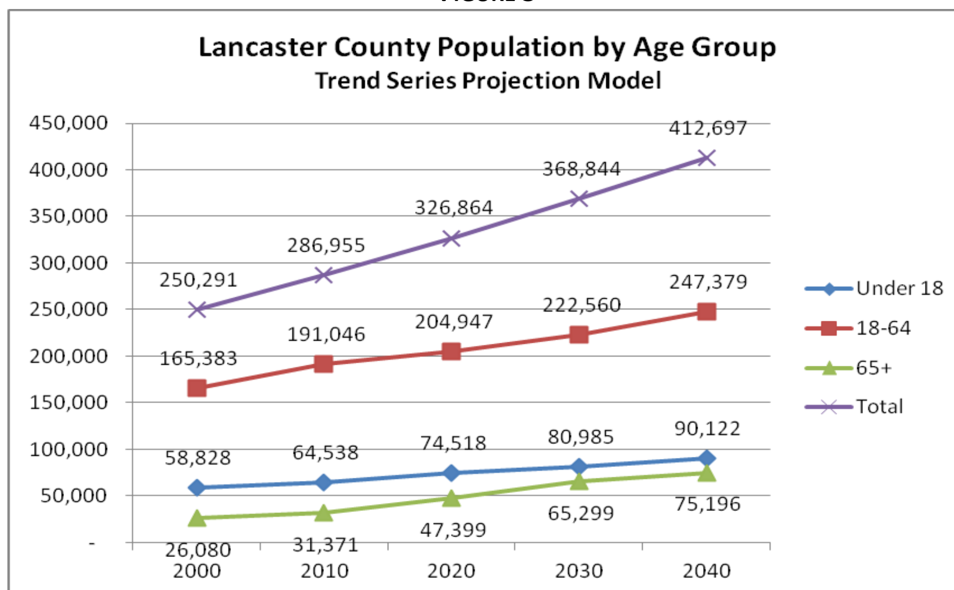
FIGURE 2



Source: Lancaster County Population Projections: 2010 2040
Summary Report by University of Nebraska Omaha, Center for Public Affairs Research May 2010.

By age group, these projections indicate that the largest rate of growth will be among the population age 65 and older. By 2040, as a result of growth rates each decade from 2020 to 2040 of 51 percent, 38 percent and 15 percent, those that are 65 years of age and older will be 18 percent of the population, compared to 11 percent in 2010.

FIGURE 3



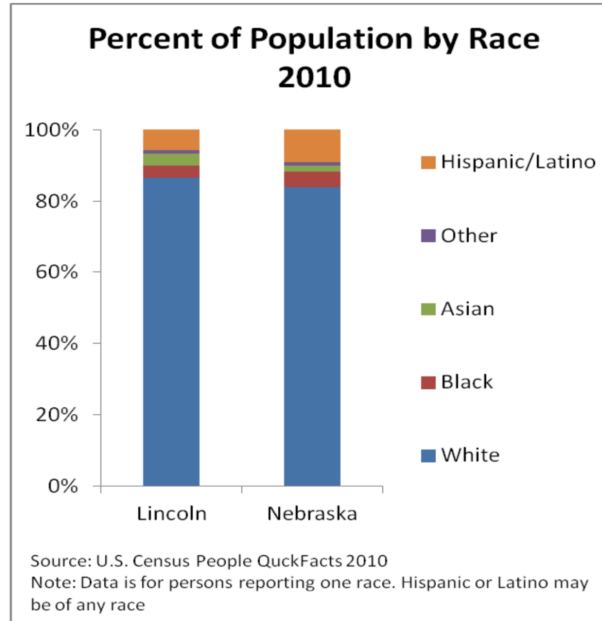
Source: Lancaster County Population Projections: 2010 2040
Summary Report by University of Nebraska Omaha, Center for Public Affairs Research May 2010.

Race and Ethnicity

Like the state, Lancaster County does not have a significant minority population (see next figure), with less than 20 percent of the population made up of a race other than white. Over 27 percent of the U.S. population is a member of a minority race, with 16.3 percent of the population identified as Latino or Hispanic.[1] Compared with the state, Lancaster's Hispanic or Latino residents make up a smaller portion of its population (5.8 percent vs. 9.2 percent), as do the portion of African American or Black (3.5 percent vs. 4.5 percent), but a larger portion of Lancaster County residents are Asian (3.5 percent compared to 1.8 percent).

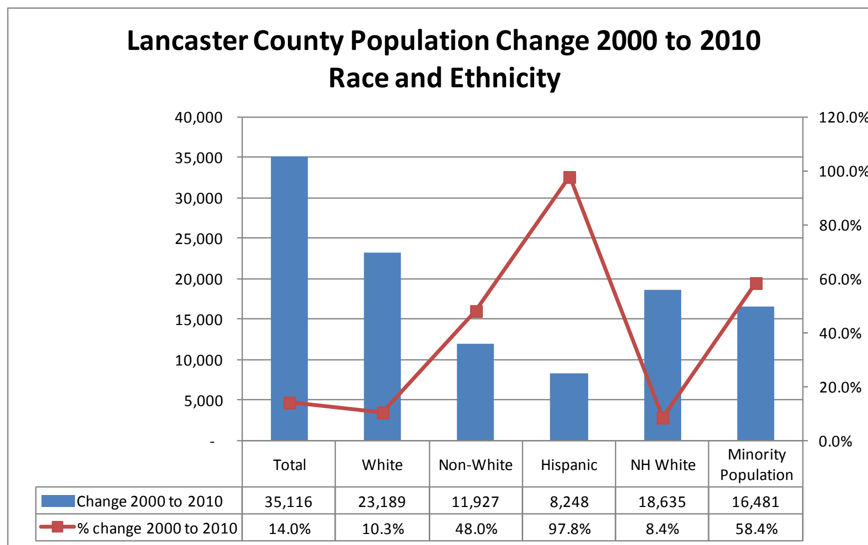
[1] U.S Census Bureau 2010 census; http://2010.census.gov/2010census/data/index.php.

FIGURE 4



While the minority population is relatively small, it has experienced much higher rates of growth in the past decade than the white population, with a 58.4 percent increase compared with 10.3 percent growth in the white population (next figure). In particular, the population with Hispanic ethnicity nearly doubled over the decade.

FIGURE 5



	Total	White	Non-White	Hispanic	NH White	Minority Population
Change 2000 to 2010	35,116	23,189	11,927	8,248	18,635	16,481
% change 2000 to 2010	14.0%	10.3%	48.0%	97.8%	8.4%	58.4%

Source: LLCHD; Community Health Status Assessment: Lincoln and Lancaster County 7/28/2011

Income and Poverty

The Lincoln metropolitan area enjoys an extremely low unemployment rate, as does Nebraska as a whole. Unemployment in August 2011 for the area was 3.9 percent compared with the state's rate of

only 4.3 percent[2] and a national rate of over twice that at 9.1 percent. Lancaster County and Nebraska appear to be avoiding much of the employment and jobs issues experienced across the U.S. Measures of family and household income (including single parent households) in Lancaster County mirror those for the state as a whole with differences within the margin of error (see next table). Median income is comparable to the U.S. Single heads of households in Lancaster County have a significantly lower median income, with the single female head of household median 67 percent of the median for the single male head of household. This is a lower ratio than Nebraska (single female householders' median is 75 percent of single male householders median), but is similar to the US percentage (68 percent).

TABLE 3: 2010 INCOME

	Lancaster County	Nebraska	United States
Median Household Income	$50,031 (+/- $1,899)	$48,408 (+/- $ 904)	$50,046 (+/- $64)
Mean Household Income	$62,783 (+/- $2,503)	$61,630 (+/- $909)	$68,259 (+/- $109)
Median Family Income	$63,901 (+/- $4,536)	$60,812 (+/- $905)	$60,609 (+/- $93)
Median Income Female Head of Household, no husband present	$25,848 (+/- $4,087)	$28,678 (+/- $1,797)	$29,220 (+/-$320)*
Median Income Male Head of Household, no wife present	$38,734 (+/- $5,018)	$38,435 (+/- $2,426)	$43,058 (+/-$660)*

Source: U.S. Census Bureau, 2010 ACS 1-year estimates; US CPS Annual Social and Economic (ASEC) Supplement

Like the state as a whole, the Lancaster County black and Hispanic populations have a much higher rate of poverty than the white and Asian populations. While the black population is small (3.5 percent of the total), an estimated 60 percent live below the poverty level. In addition, one in five children under the age of 18 live in poverty.

TABLE 4: 2010 POVERTY

	Lancaster County		Nebraska	
	%	**MoE**	**%**	**MoE**
Below Poverty (all)	15.9%	+/-1.8	12.9%	+/-0.7
White	14.0%	+/-1.8	11.0%	+/-0.7
Black or African American	59.2%	+/-15.6	36.6%	+/-4.9
Asian	14.8%	+/-8.5	11.3%	+/-3.7
Hispanic or Latino (any race)	32.6%	+/-11.7	27.0%	+/-3.6

Source: U.S. Census Bureau 2010 ACS 1-year estimates

TABLE 5: 2010 POVERTY BY AGE

	Lancaster County		Nebraska	
	%	**MoE**	**%**	**MoE**
Under 18	*20.3%*	*+/-4.1*	*18.2%*	*+/-1.5*
18-64 years of age	16.1%	+/-1.8	12.0%	+/-0.6
65 years and over	5.9%	+/-2.7	7.5%	+/-0.7

[2] Bureau of Labor Statistics; News Release USDL-11-1396; Metropolitan Area Employment and Unemployment; seasonally unadjusted. September 28, 2011; http://www.bls.gov/news.release/pdf/metro.pdf.

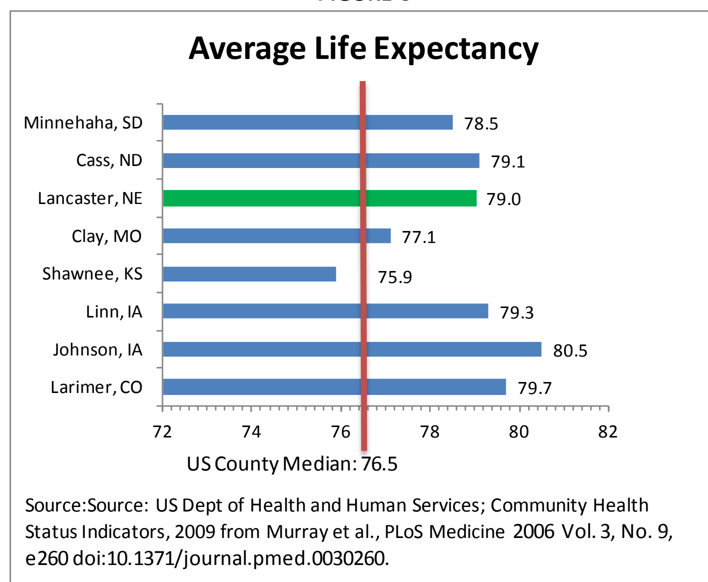
Source: U.S. Census Bureau 2010 ACS 1-year estimates

Mortality

NOTE: In the following sections, we compare Lancaster County health-related data to data for seven comparable counties, the state of Nebraska and the United States. Comparable counties are a subset of counties identified by the US Department of Health and Human Services in the Community Health Status Indicators for 2009 (CHSI). See the attachment to this Environmental Scan for a discussion of how the seven peer counties were chosen and how they compare to Lancaster County demographically. In some cases, due to small sample size, data for all measures is not available for all peer counties.

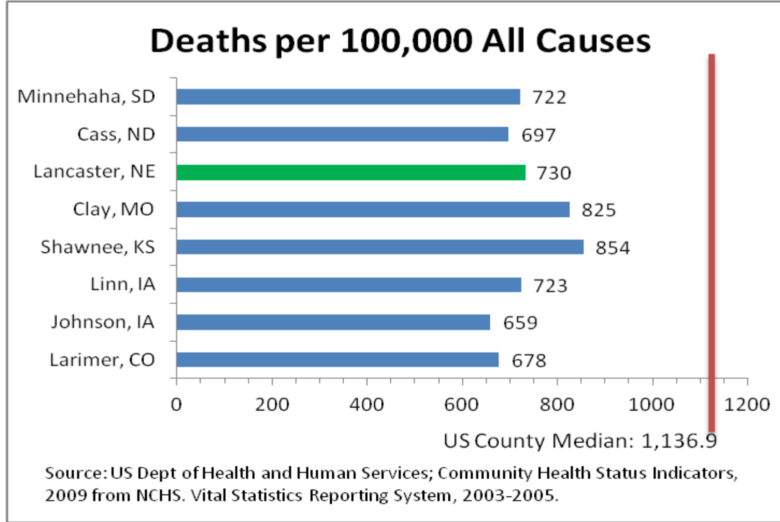
The average life expectancy in all but one peer county exceeds the U.S county median. Lancaster County average life expectancy (79 years) is comparable to the peer counties.

FIGURE 6



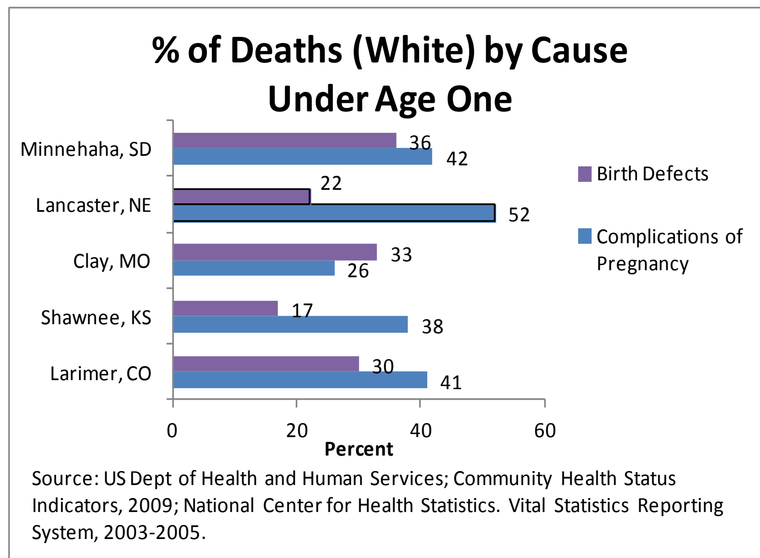
As shown below, the overall death rate from all causes in the peer counties is much lower than the U.S. median rate. Lancaster County is comparable to the peer counties (730 deaths per 100,000 population).

FIGURE 7



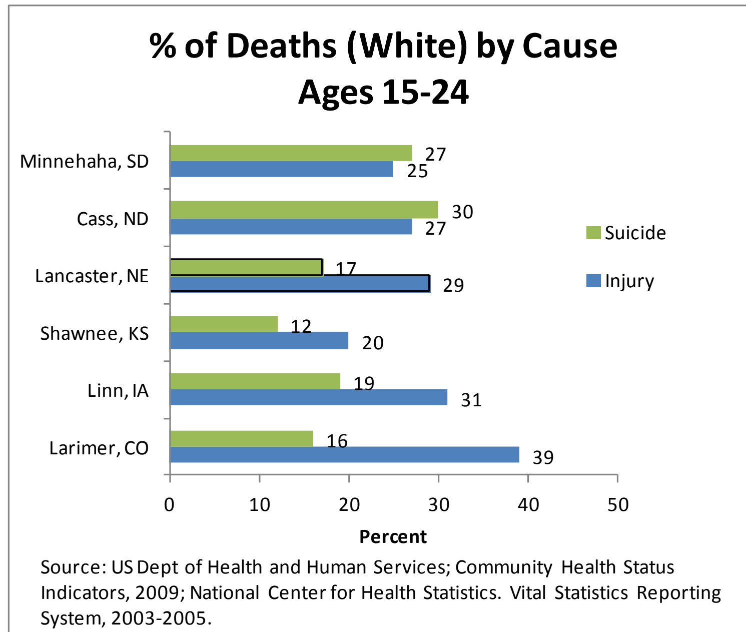
The chart below indicates that the Lancaster County death rate related to birth defects for white infants is lower than all but one of the peer counties with available data. However, the county's white infant death rate related to complications of pregnancy is higher than four of the peer counties for which data is available.

FIGURE 8



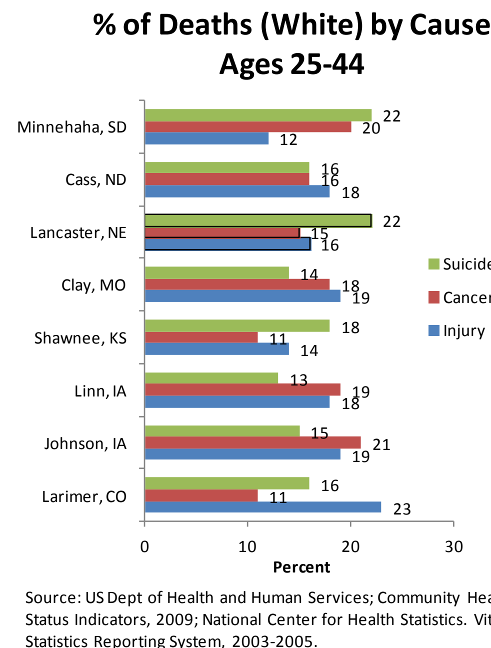
Data for the cause of death for children ages 1 to 14 is not available due to small sample size. For white individuals ages 15 to 24 in Lancaster County, rates of death from injury and suicide lie in the middle of the range for the peer counties.

FIGURE 9



In the 25 to 44 age range, Lancaster County has the highest rate of death from suicide, along with Minnehaha County, South Dakota. Lancaster County is one of three counties in the group of 8 in which suicide exceeds both cancer and injury as a cause of death. Lancaster County has a relatively low rate of death from cancer in this age group compared to the other peer counties, with only two counties reporting lower rates.

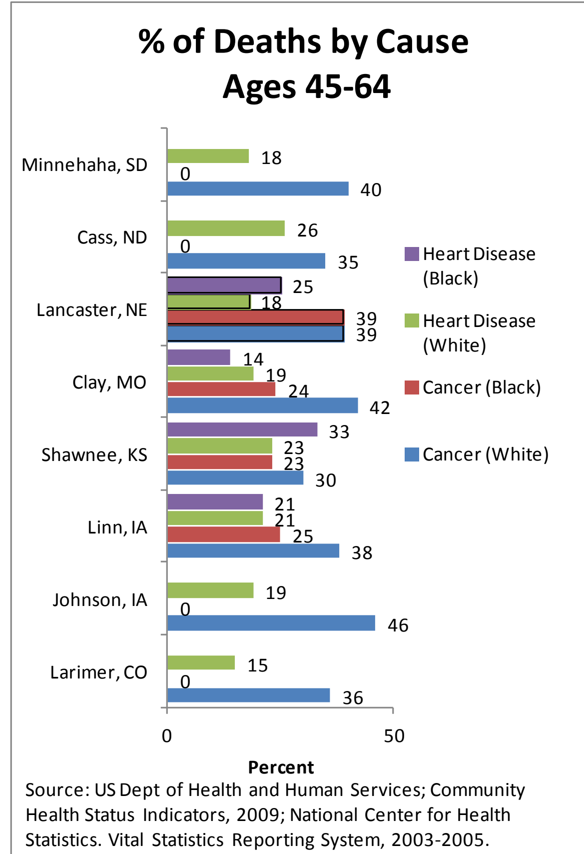
FIGURE 10



Source: US Dept of Health and Human Services; Community Health Status Indicators, 2009; National Center for Health Statistics. Vital Statistics Reporting System, 2003-2005.

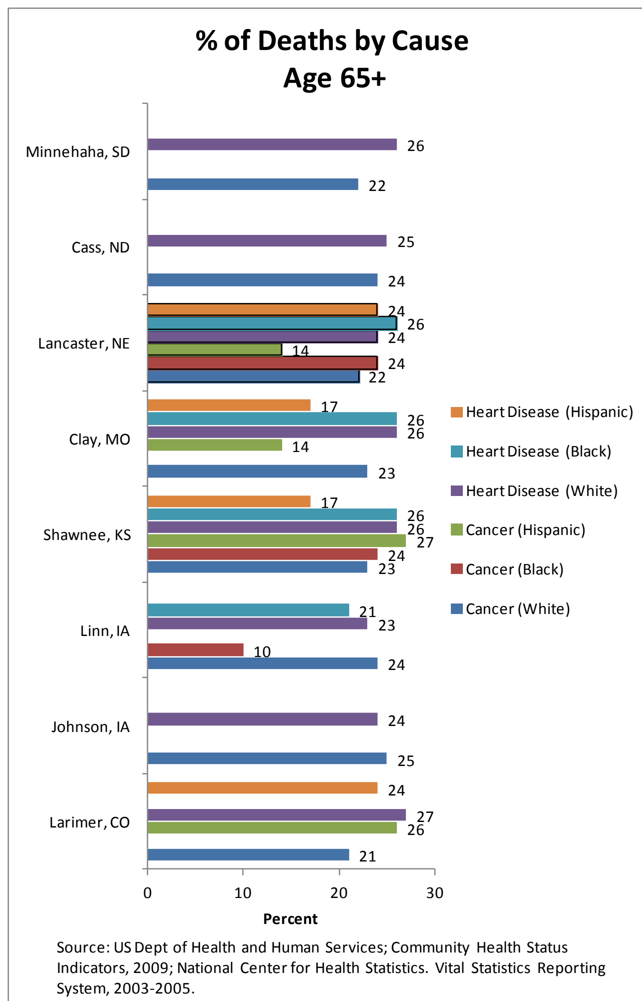
Among county residents 45-64 years of age, the percentage of deaths among blacks due to cancer is the highest of the peer counties for which data is available, but is comparable to the percentage of deaths for the white population in this age range in the county.

FIGURE 11



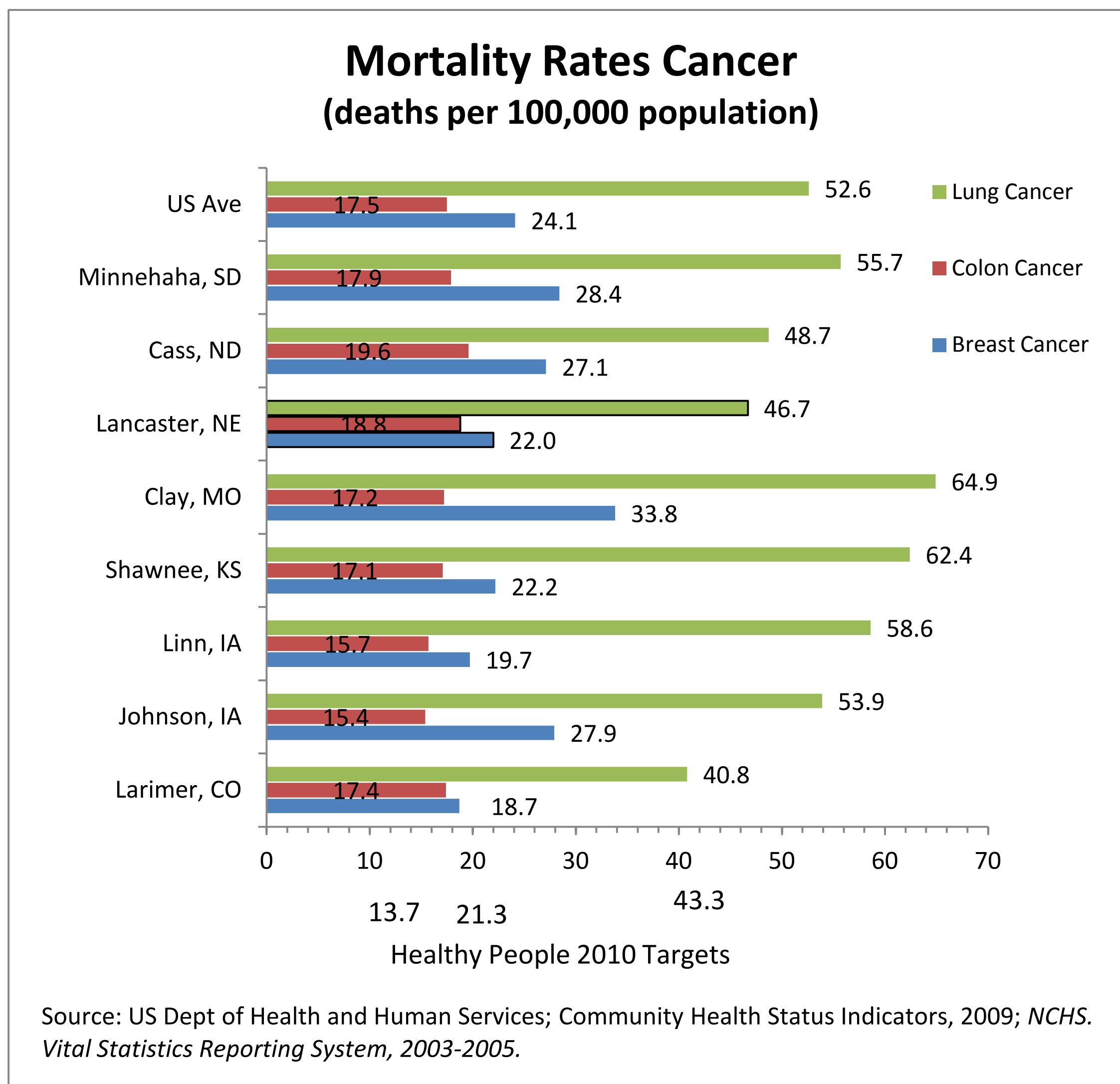
Heart disease accounts for about 25 percent of all deaths over the age of 65 among whites, blacks and Hispanics in Lancaster County. African American mortality from cancer is also about 25 percent. Deaths from heart disease for this age group is comparable to that in the peer counties, where data is available, except for Hispanics, who have a higher percentage of death from heart disease in Lancaster and Larimer Counties than two other peer counties with data (Cass and Shawnee). The percentage of deaths among Hispanics due to cancer is lower (along with Clay County) than other counties with data.

FIGURE 12



Lancaster County mortality rates from cancer are comparable to the peer counties and to the U.S. The county's breast cancer death rate is lower than most peer counties and the U.S. rate.

FIGURE 13



Lancaster County cancer rates are also comparable to state rates. As the chart below shows, the county's death rate for all cancers dropped in 2008 and 2009 after a period of slight increase since 2003.[3]

TABLE 6: CANCER MORTALITY RATES - AGE ADJUSTED PER 100,000 – 2004-2008

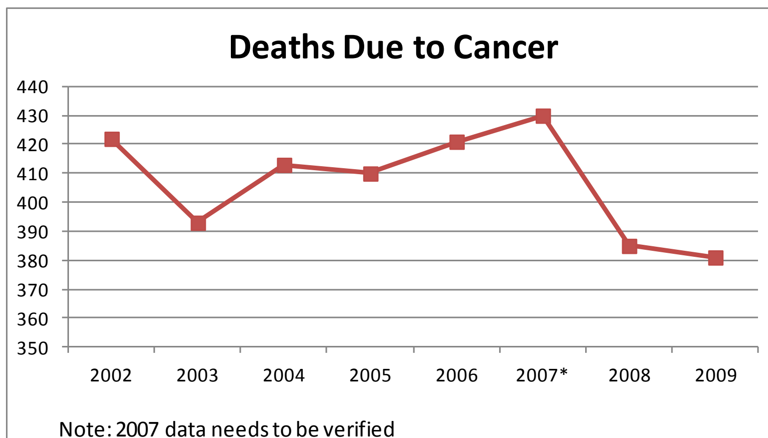
	County	State
all sites	172.0	175.7
lungs & bronchus	48.4	47.8
female breast	21.8	22.0
colon & rectum	16.4	18.8
prostate	25.7	24.9

[3] The crude death rate is calculated as the total number of deaths to residents of a region divided by the region's population. The age adjusted death rate is a calculation that removes data variances due to age distribution differences within and between regions.

	County	State
urinary bladder	3.7	4.0
non-Hodgkin lymphoma	7.6	7.2
leukemia	7.7	7.3
kidney & renal pelvis	3.7	3.7
melanoma	3.5	3.0
uterine corpus & unspecified	5.1	5.0

Source: LLCHD - Community Health Status Report - Mobilizing for Action through Planning and Partnerships - 2011

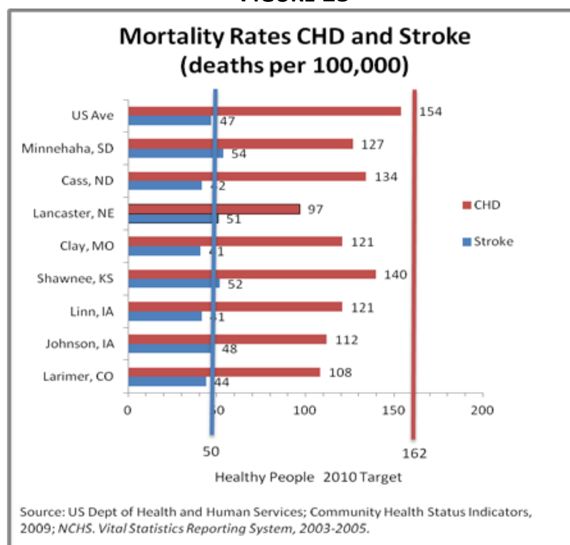
FIGURE 14



Source: LLCHD Health Status Report, Mobilizing for Action through Planning and Partnerships, 2011

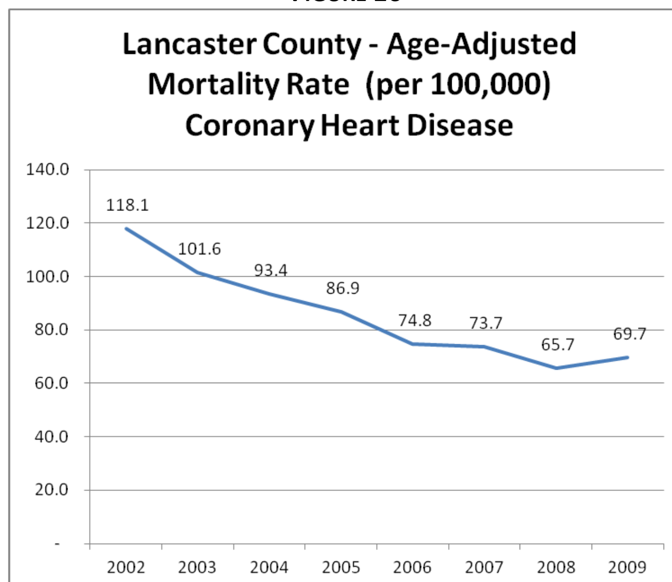
Lancaster County also has relatively low mortality rates from coronary heart disease and stroke compared to the U.S. and peer counties. In fact, the coronary heart disease rate is substantially lower than all peers.

FIGURE 15



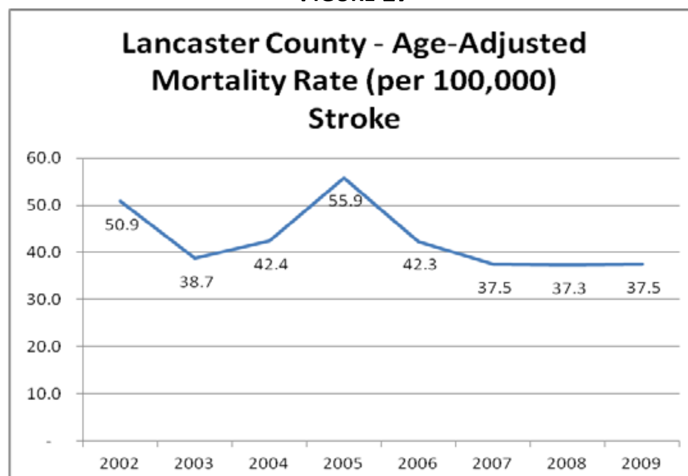
As the following charts show, the county's coronary heart disease mortality rate has been improving since 2002, while the stroke mortality rate has been steady since 2007.

FIGURE 16



Source: LLCHD - Community Health Status Report - Mobilizing for Action through Planning and Partnerships – 2011

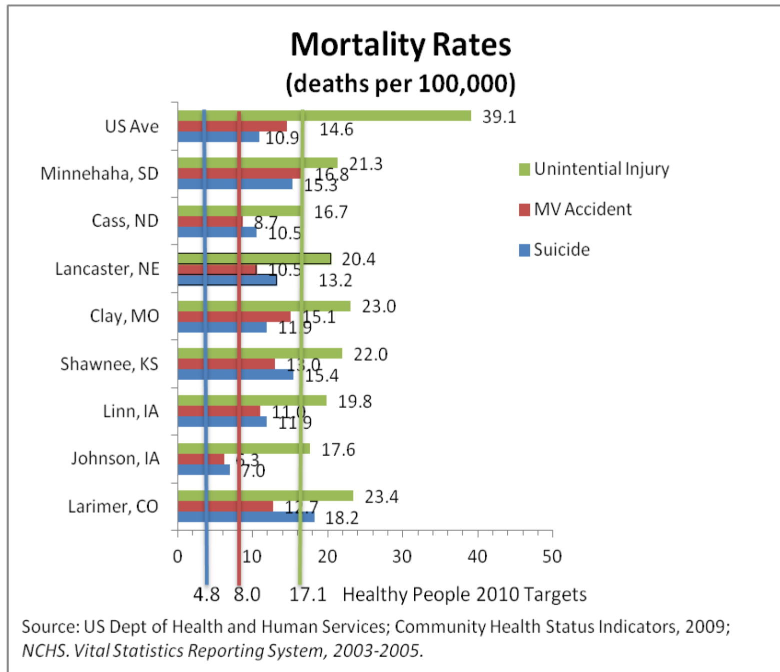
FIGURE 17



Source: LLCHD - Community Health Status Report - Mobilizing for Action through Planning and Partnerships - 2011

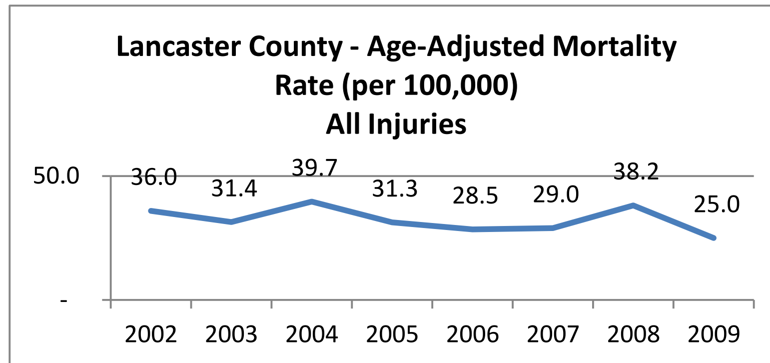
Lancaster County mortality rate from suicide is higher than the U.S. average and higher than 4 of the 7 peer counties. Mortality from unintentional injuries is comparable to the peer counties and much lower than the U.S. average.

FIGURE 18



The Lancaster County 2009 mortality rate from injuries is the lowest since 2002.

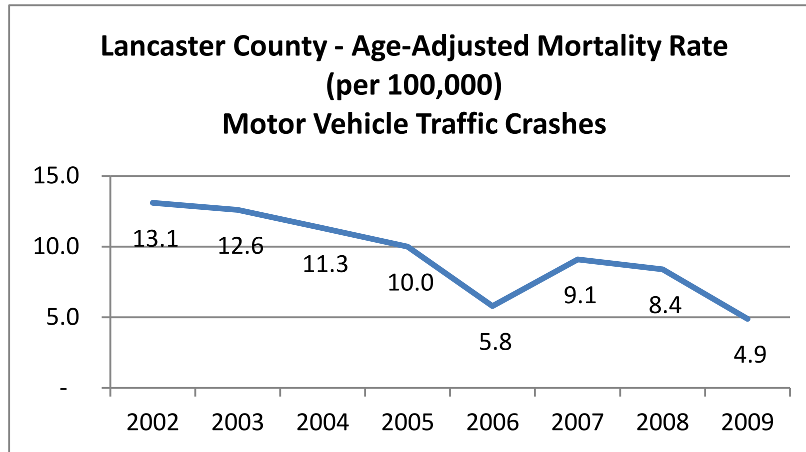
FIGURE 19



Source: LLCHD - Community Health Status Report - Mobilizing for Action through Planning and Partnerships - 2011

Age-adjusted fatalities from motor vehicle accidents have declined significantly since 2002 to their lowest rate in 2009 (most recent year available).

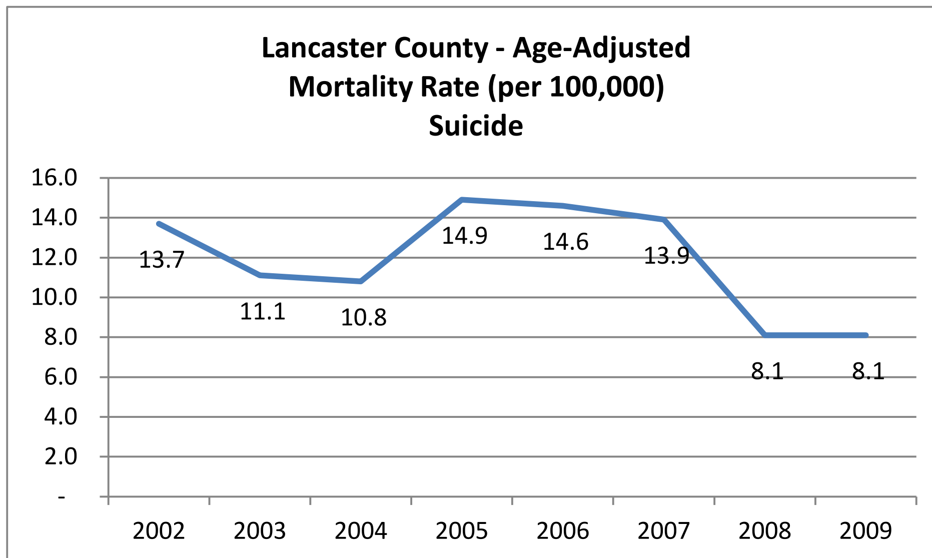
FIGURE 20



Source: LLCHD - Community Health Status Report - Mobilizing for Action through Planning and Partnerships - 2011

Although Lancaster shows a high suicide rate compared to peer counties, the Lancaster County 2009 mortality rate due to suicide is the lowest in eight years.

FIGURE 21



Source: LLCHD - Community Health Status Report - Mobilizing for Action through Planning and Partnerships - 2011

Birth Measures

Lancaster County compares favorably to the U.S. in the percentage of low birth weight and very low birth weight newborns. Among the peer counties, Lancaster has the third highest rate of low birth weight babies. Lancaster County exceeds the Healthy People 2010 target for both measures. While the overall low birth weight rate is under 8 for the county in 2010, the rate for black infants is much higher (see below). As with the rate of low birth weight, the county's rate of very low birth weight is lower

than the U.S. average and comparable to peer county averages. Lancaster County's rate of premature birth is comparable to the U.S. rate but higher than all peer counties but one.

FIGURE 22

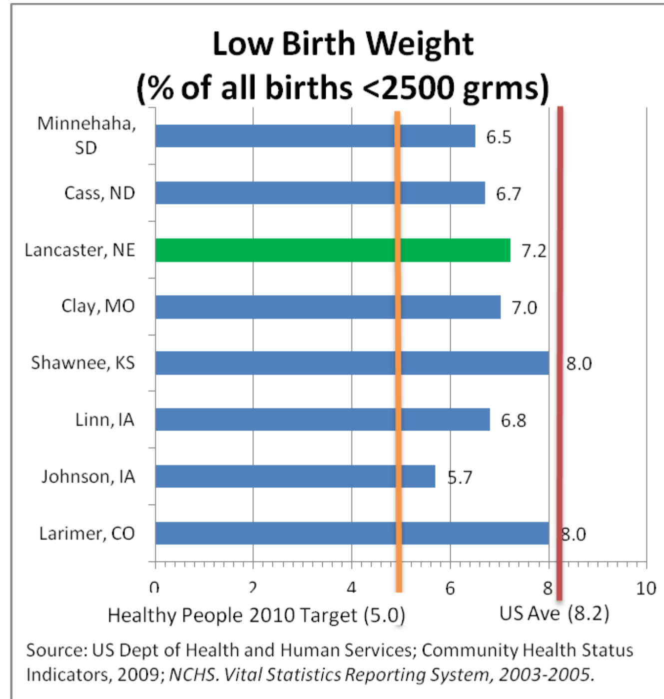


FIGURE 23

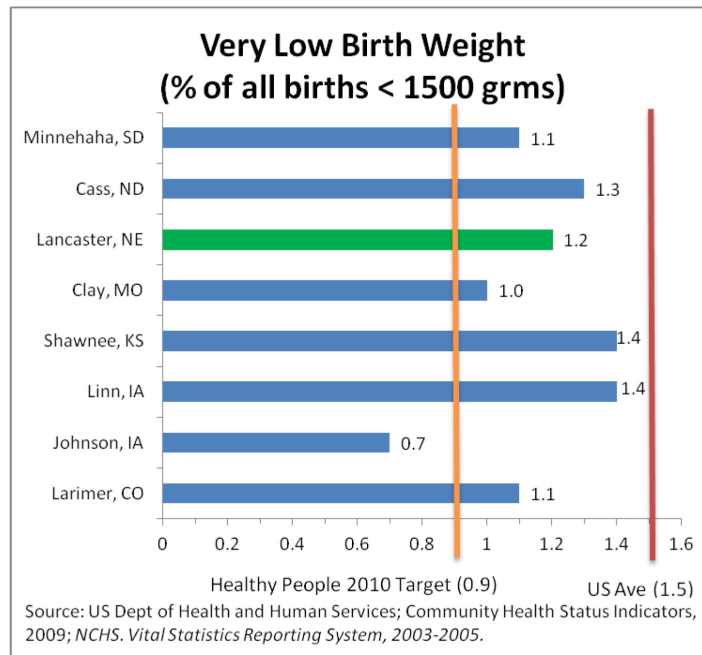
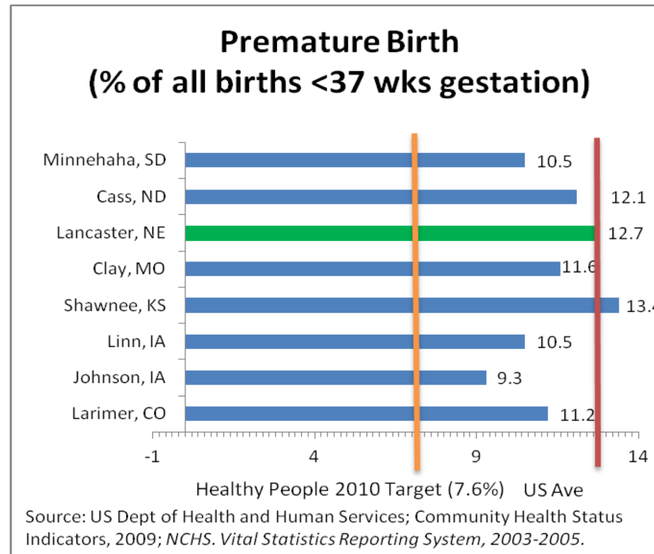
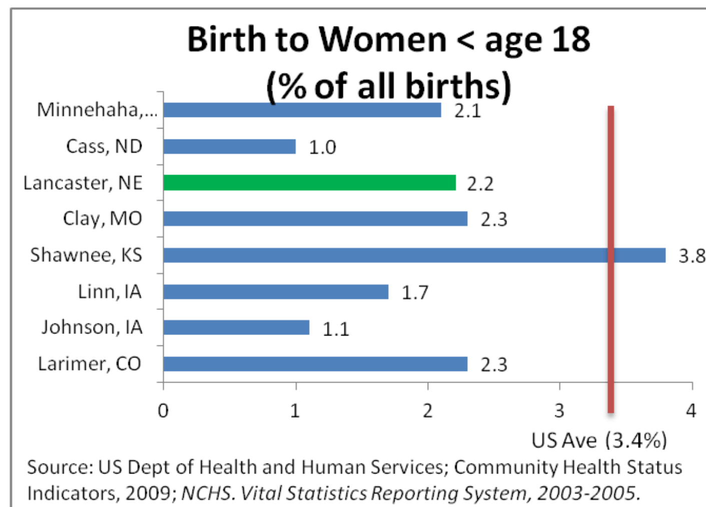


FIGURE 24



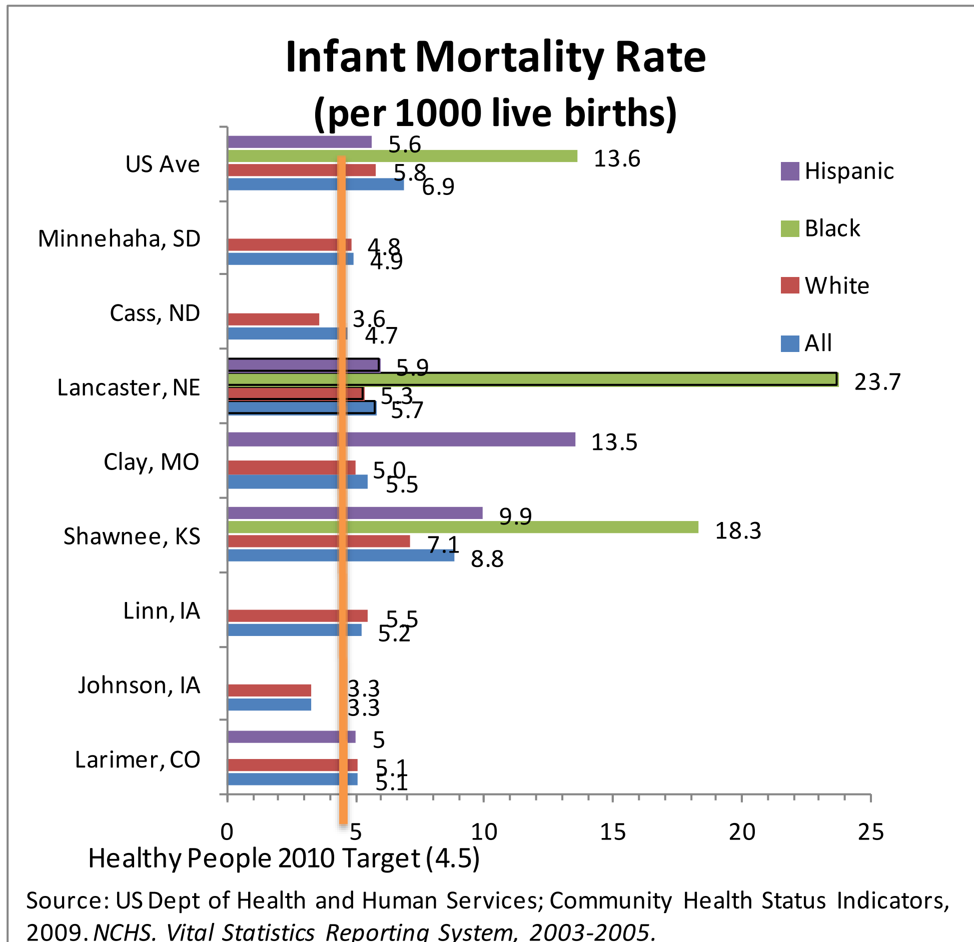
For births to Women under the age of 18, Lancaster County compares favorably with the U.S. and with peer counties.

FIGURE 25



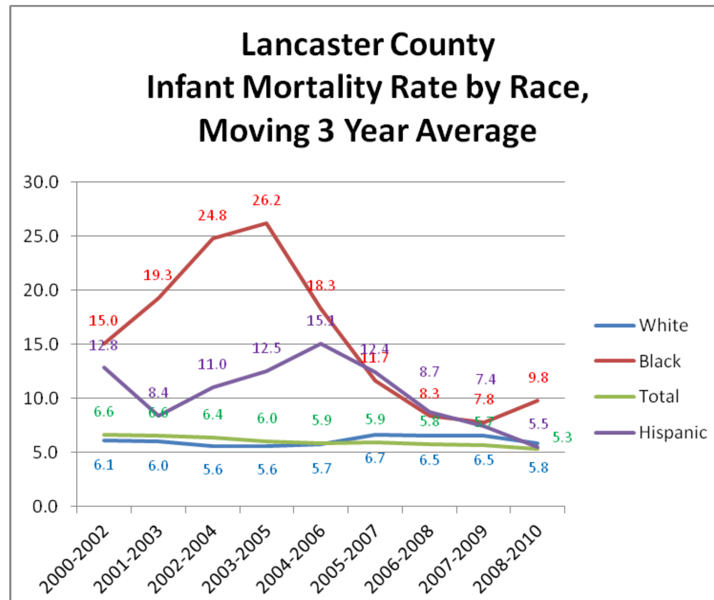
Lancaster County's infant mortality rate for black babies greatly exceeds the U.S. average and all of the peer counties. The infant mortality rate for Hispanic population is comparable to the U.S. and lower than two of the three peer counties for which data is available. The infant mortality rate for white babies is comparable to both the U.S. and to the peer counties.

FIGURE 26



CHSI measures aggregate data from 2003 through 2005. As the following chart shows, the infant mortality rate for blacks has come down in recent years but is still higher than the rate for whites and Hispanics.

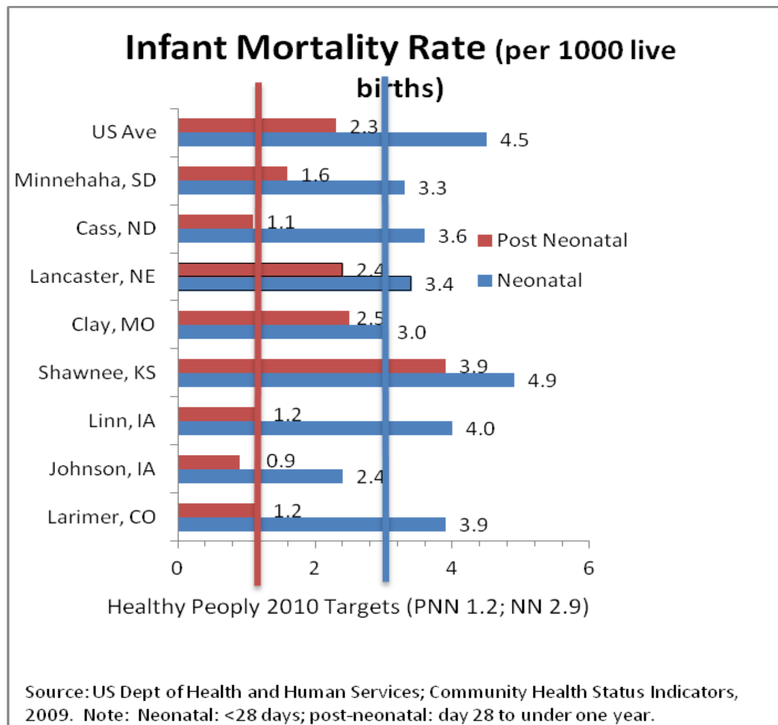
FIGURE 27



Source: LLCHD Vital Statistics data.
Note: Infant Mortality Rate: Infant Deaths (Under 1 year) per 1000 Live Births

The post neonatal infant mortality rate in Lancaster County is higher than all but three of the peer counties, but is comparable to the U.S. rate. The neonatal infant mortality rate is comparable to the peer counties and lower than the U.S. rate.

FIGURE 28



Chronic Disease

The following table compares county data related to health conditions to data for Nebraska and the U.S. In general, Lancaster County's data compares favorably to data for the state and the nation. The county's diagnosis rates for Asthma (ever), Arthritis, Angina or Heart Disease, Heart Attack, High Cholesterol, High Blood Pressure and Elderly with All Teeth Extracted are lower than for Nebraska or the U.S. Only the rates of Strokes, Limited in Activities due to Physical, Mental or Emotional Problems, and Needing Special Equipment are higher than the state and the U.S.

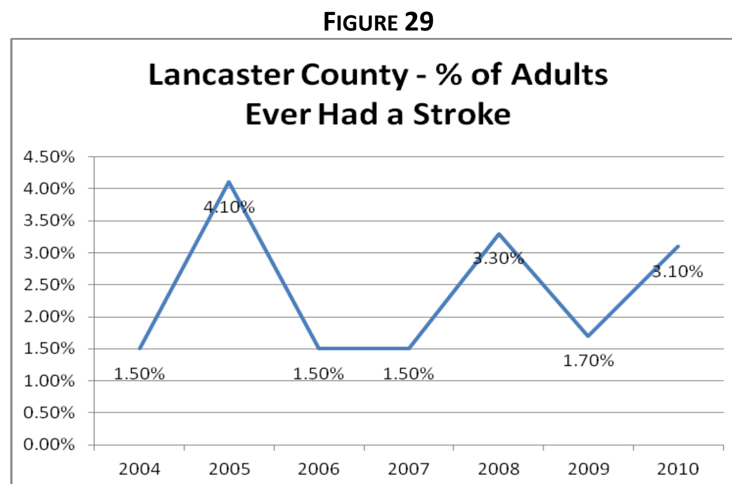
TABLE 7: % OF ADULTS WITH DIAGNOSED HEALTH CONDITIONS – 2010 BRFSS DATA (IN SOME CASES 2009)

	County	State	US
Asthma (current)	8.3%	7.8%	9.1%
Asthma (ever)	12.0%	12.2%	13.8%
Arthritis (2009)	21.2%	25.9%	26.0%
Angina or CHD	2.7%	4.0%	4.1%
Heart attack	2.8%	3.9%	4.2%
Stroke	3.1%	2.4%	2.7%
Diabetes	8.1%	7.7%	8.7%
High cholesterol (2009)	29.0%	37.4%	37.5%
High blood pressure (2009)	24.0%	27.1%	28.7%
Limited in activities due to physical, mental or emotional problems	22.3%	18.9%	21.1%
Adults needing special equipment	10.5%	6.6%	7.5%
Elderly with all teeth extracted	12.3%	15.2%	16.9%

Source: BRFFS data from LLCHD Community Health Status Assessment

As seen in the following graph, the rate of adults who have ever had a stroke has been up and down since 2004.

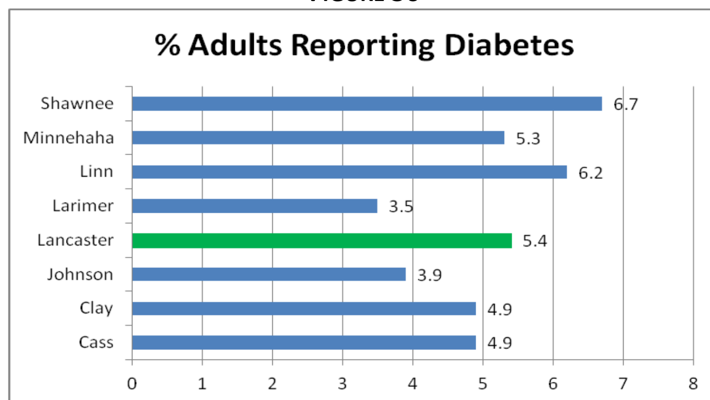
FIGURE 29



Source: LLCHD - Community Health Status Report - Mobilizing for Action through Planning and Partnerships – 2011

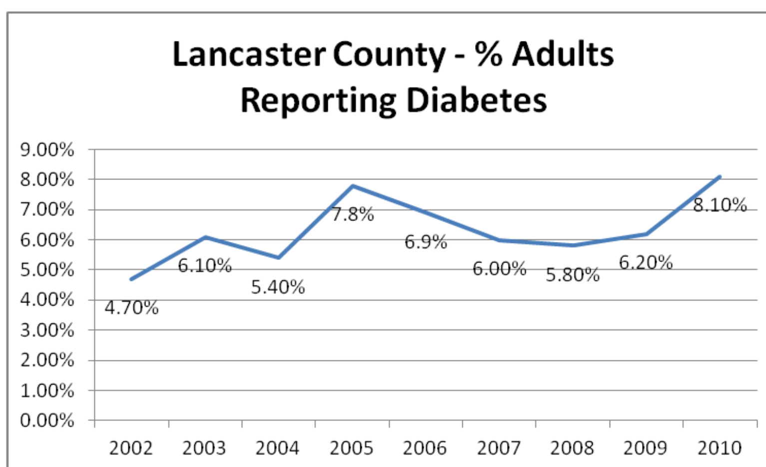
The adult diabetes rate, although lower than the rate for Nebraska and the U.S. and comparable to peer counties, is on an upward trend over the last 3 years.

FIGURE 30



Source: US Dept. of Health and Human Services; Community Health Status Indicators, 2009. Centers for Disease Control Behavioral Risk Factor Surveillance System, 2000-2006.

FIGURE 31



Source: LLCHD - Community Health Status Report - Mobilizing for Action through Planning and Partnerships – 2011

Risk Factors

When compared to the state and the U.S., Lancaster County adults are significantly less likely to report being in fair or poor health. The county's 8.4 percent rate of self-reported fair or poor health compares to a 12 percent rate for Nebraska and a 14.7 percent rate for the U.S.

TABLE 7: BRFSS SELF-REPORTED HEALTH STATUS

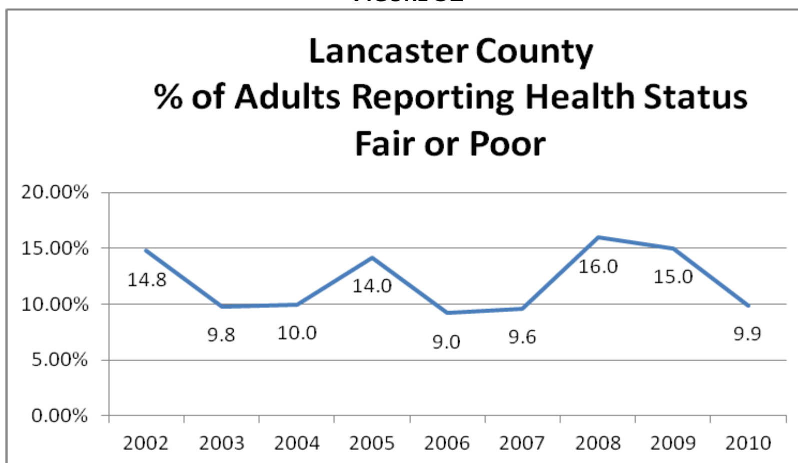
	Lancaster County	NE	U.S. (median states, DC)
Adults reporting general health as fair or poor (2010 BRFSS)*	8.4%	12.0%	14.7%
Adults reporting general health as fair or poor (2009 CHSI/BRFSS)	9.5%	13.1%	17.1%

Source: http://apps.nccd.cdc.gov/brfss-smart/MMSARiskChart.asp?yr=2010&MMSA=48&cat=HS&qkey=4414&grp=0

***Note that the 2010 county data is for Lincoln, NE Metropolitan Statistical Area**

As the following graph shows, this measure of health has been variable over the last nine years.

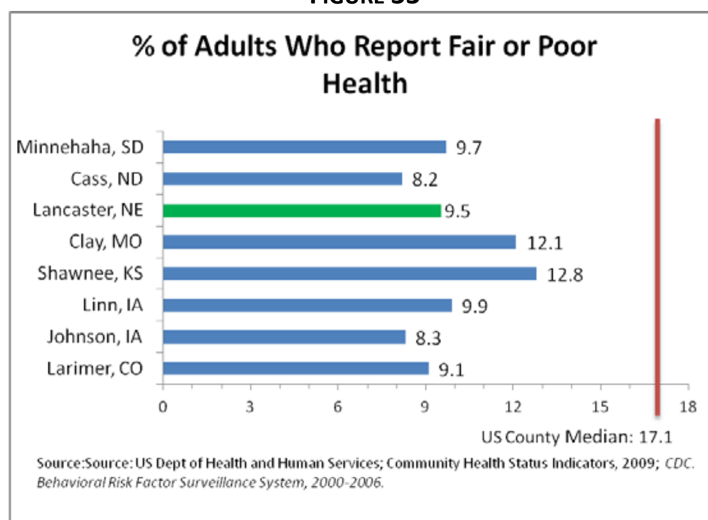
FIGURE 32



Source: LLCHD - Community Health Status Report - Mobilizing for Action through Planning and Partnerships – 2011

Lancaster County's rate of individuals reporting fair or poor health for 2000 to 2006 is comparable to the peer counties with a rate (9.5 percent) in the middle of the peer county range (from about 8 percent to 13 percent).

FIGURE 33



Lancaster County compares favorably to the state and the nation with regards to adult activity levels. County residents are much less likely to report no physical activity in the last month, more likely to report moderate or vigorous physical activity in a usual week and more likely to report vigorous physical activity at least three times a week.

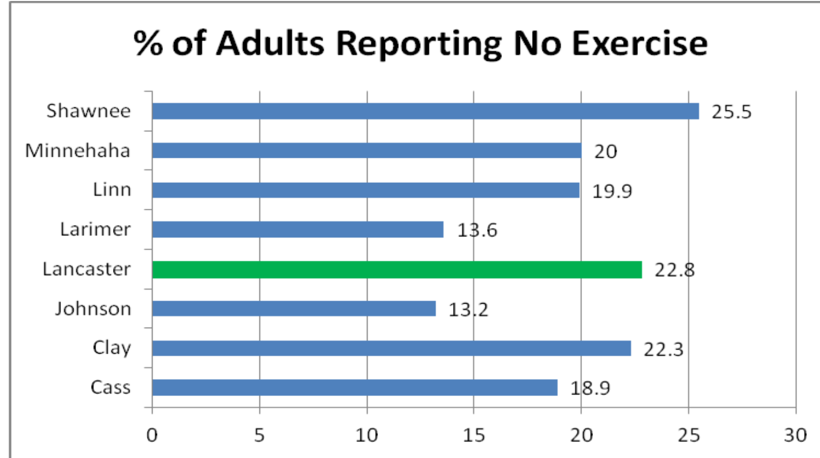
TABLE 8: SELF-REPORTED PHYSICAL EXERCISE

	Lancaster County	NE	U.S. (median states, DC)
Adults reporting no leisure time exercise or physical activity in past 30 days (2010 BRFSS)	17.6%	24.7%	23.9%
Adults reporting moderate or vigorous physical activity in a usual week (2009)	57.0%	48.9%	49.0%
Adults reporting vigorous physical activity at least 3 days a week (2009)	34.7%	29.7%	29.2%

Source: Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System 2010

In contrast to these favorable comparisons of physical activity in Lancaster County, when compared to peer counties for 2000-2006, Lancaster has a rate of adults reporting no exercise that exceeds all but one peer county.

FIGURE 34



Source: US Dept. of Health and Human Services; Community Health Status Indicators, 2009. Centers for Disease Control Behavioral Risk Factor Surveillance System, 2000-2006.

Lancaster County's 2000-2006 rate of adults who report being current smokers is slightly higher than state and national rates.

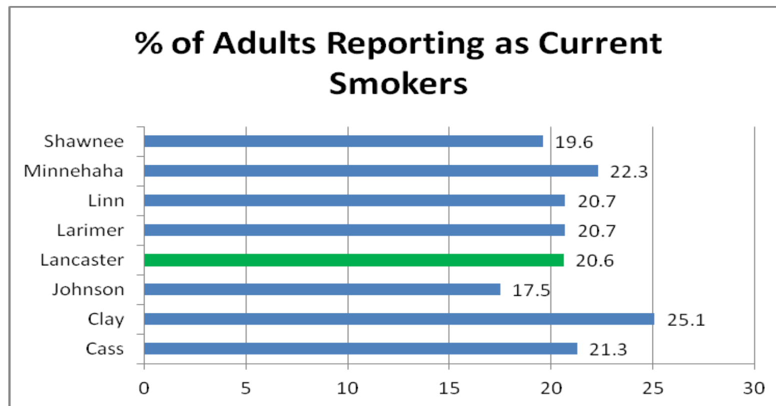
TABLE 9: BRFSS SELF-REPORTED SMOKING

	Lancaster County	NE	U.S.(median)
Adults reporting having smoked at least 100 cigarettes in their lifetime and currently smoke	17.8%	17.2%	17.3%

Source: Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System 2010

The current smoker rate is lower than all but two peer counties.

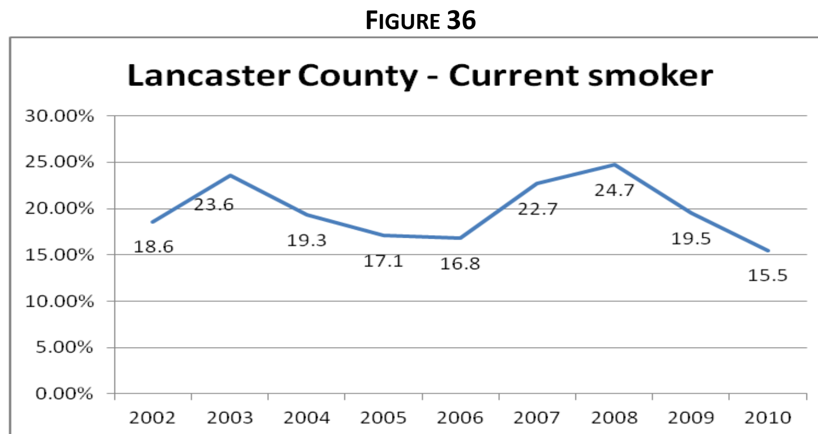
FIGURE 35



Source: US Dept. of Health and Human Services; Community Health Status Indicators, 2009. Centers for Disease Control Behavioral Risk Factor Surveillance System, 2000-2006.

The county's current smoker rate for 2010 is the lowest in nine years.

FIGURE 36



Source: LLCHD - Community Health Status Report - Mobilizing for Action through Planning and Partnerships – 2011

As the following table indicates, the Lancaster County BRFSS measures related to alcohol consumption are higher than state and national rates with the binge drinking rate much higher than Nebraska and the U.S.

TABLE 10: SELF-REPORTED DRINKING

	Lancaster County	NE	U.S.(median)
Binge drinkers: adults having 5 + drinks on an occasion, 1+ times in past month	23.1%	19.4%	15.1%
Heavy drinkers: men having >2 drinks/day and women having >1 drink/day	5.9%	5.5%	Women 4.5%, Men 5.4%

Source: Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System 2010

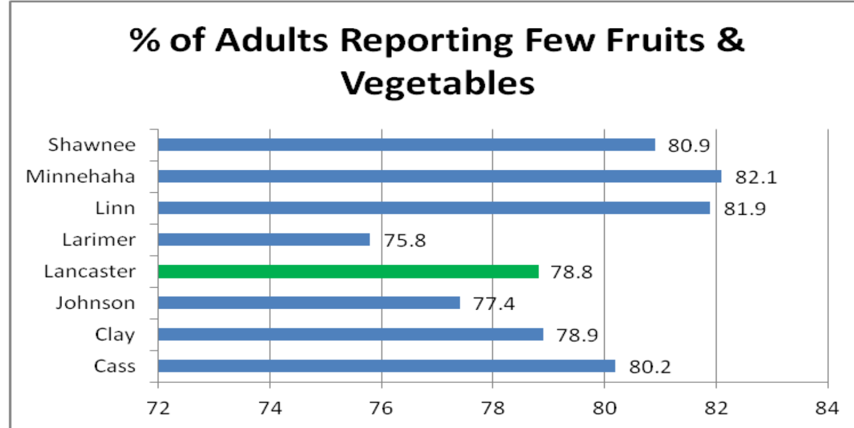
Although the Lancaster County rate of adults consuming few fruit and vegetables (less than five in a day) is slightly higher than the state or U.S. rates, it is in line with peer counties.

TABLE 11: SELF-REPORTED HEALTHY EATING

	Lancaster County	NE	U.S.(median)
Adults reporting fruit and vegetable consumption fewer than five times a day (2009)	82.9%	79.1%	76.6%

Source: Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System 2010

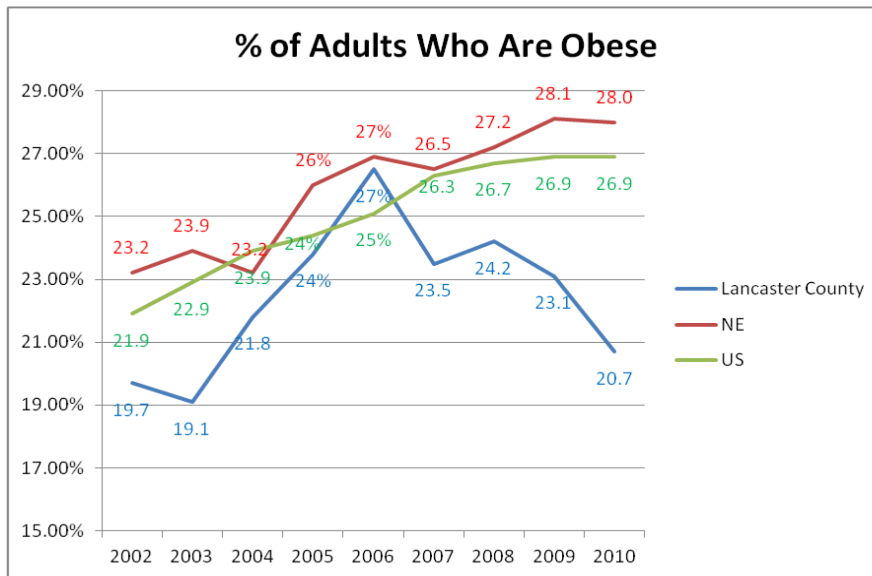
FIGURE 37



Source: US Dept. **of Health and Human Services; Community Health Status Indicators, 2009. Centers for Disease Control Behavioral Risk Factor Surveillance System, 2000-2006.**

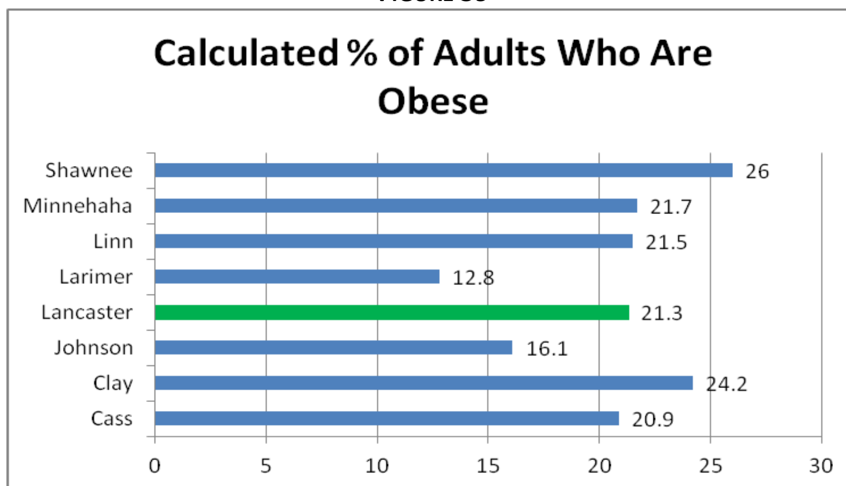
An individual with a body mass index (BI) of 30 or more is considered obese. Since 2002, the Lancaster County rate of adult obesity has been, with one exception, lower than the rates for Nebraska and the U.S. The county's adult obesity rate was also comparable to the rates of peer counties.

FIGURE 38



Source: LLCHD - Community Health Status Report - Mobilizing for Action through Planning and Partnerships – 2011

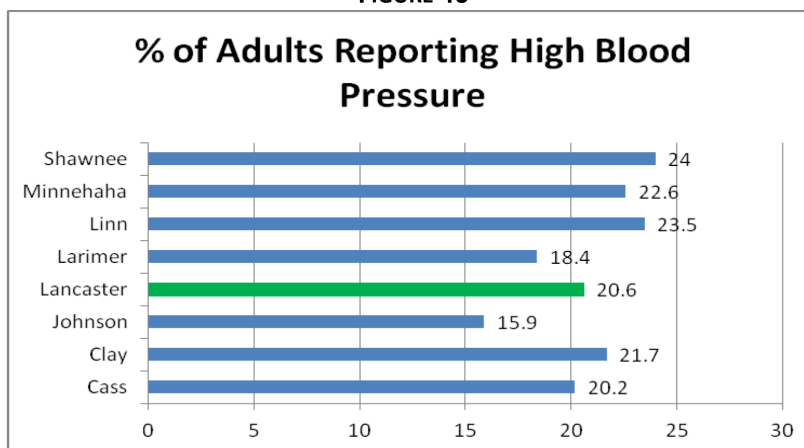
FIGURE 39



Source: US Dept. of Health and Human Services; Community Health Status Indicators, 2009. Centers for Disease Control Behavioral Risk Factor Surveillance System, 2000-2006.

The 2000-2006 rate of adults reporting high blood pressure in Lancaster County is comparable to peer counties.

FIGURE 40



Source: US Dept. of Health and Human Services; Community Health Status Indicators, 2009. Centers for Disease Control Behavioral Risk Factor Surveillance System, 2000-2006.

A smaller percentage of adults in Lancaster County report limited activities or the need to use special equipment than in the state or the U.S.

TABLE 12: BRFSS SELF-REPORTED LIMITED ACTIVITIES

	Lancaster Co	Nebraska	U.S.
Limited in activities due to physical, mental, emotional problems	17.5%	18.9%	21.1%
Adults with health problems that require the use of special equipment	5.0%	6.6%	7.5%

Source: Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System 2010

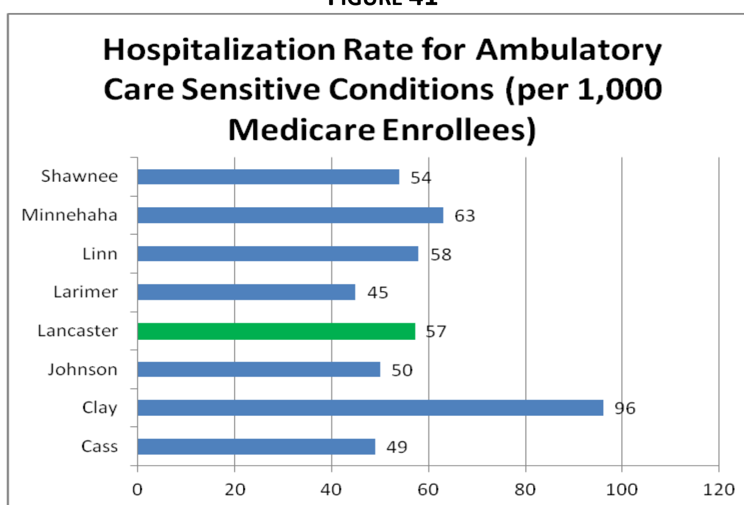
The rate of hospitalization in Medicare for conditions that are sensitive to ambulatory care is a proxy for unnecessary hospital stays. This rate is lower in Lancaster County than in Nebraska, higher than the National benchmark, and comparable to the rates of peer counties.

TABLE 13: PREVENTABLE HOSPITAL ADMISSIONS

	Lancaster County	Nebraska	National Benchmark
Hospitalization rate for ambulatory care sensitive conditions (rate per 1,000 Medicare enrollees)	57	69	52

Source: Medicare Claims/Dartmouth Atlas 2006-07 as found in 2011 County Health Rankings for Nebraska at countyheatlhrankings.com.

FIGURE 41



Source: Medicare Claims/Dartmouth Atlas 2006-07 as found in 2011 County Health Rankings for Nebraska at countyheatlhrankings.com

Preventive Services

Lancaster County's rates of preventive services are, for the most part, comparable to rates for the state and the nation. Colonoscopy, flu shot and pneumonia vaccine rates are higher in the county. The county's rates for mammograms and dentist visits are comparable. Rates for PSA tests and pap tests are lower than the state and U.S.

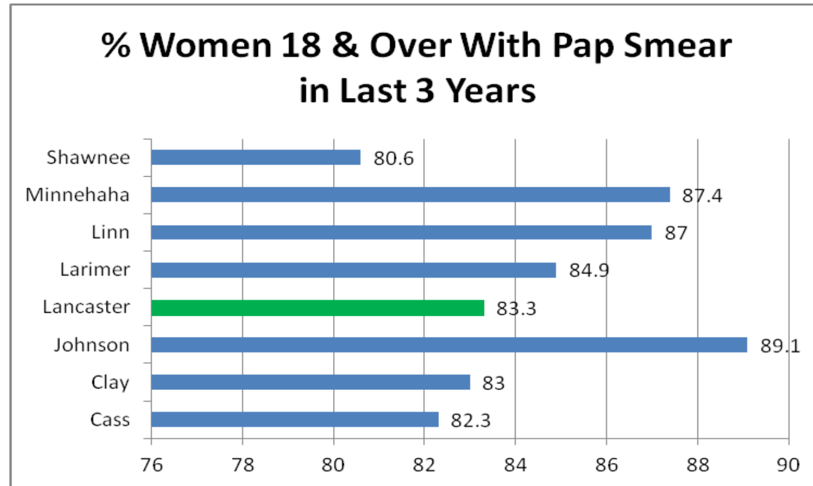
TABLE 14: 2010 BRFSS PREVENTIVE SERVICES DATA

	County	NE	US
colonoscopy in the past 2 years, 50+	66.1%	61.8%	64.2%
PSA test in past 2 years, males 40+	45.6%	51.5%	53.5%
Mammogram in past 2 years, females 50+	74.7%	72.5%	77.8%
Pap test in past 3 years, females 18+	72.6%	80.2%	80.9%
had flu shot in past year adults 65+	72.3%	71.2%	67.4%
Ever had pneumonia vaccination, adults 65+	75.1%	70.9%	68.6%
visited a dentist within the past year	69.9%	69.5%	69.9%
could not visit dentist in last year b/c cost	26.0%		

Source: LLCHD Draft CHS Report 8/22/2011

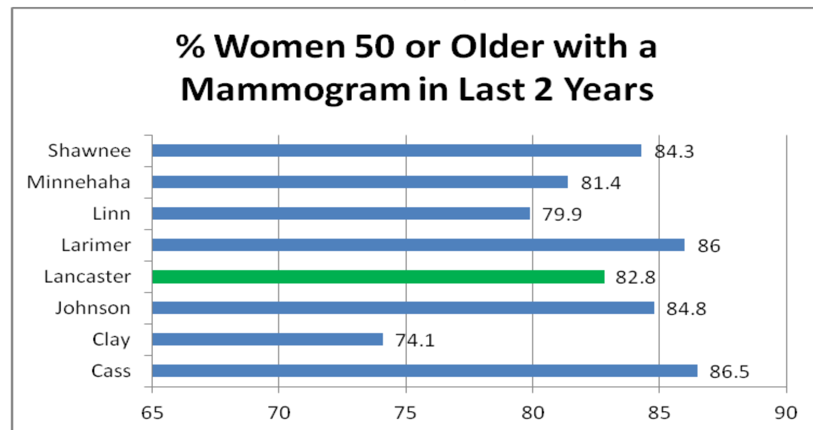
As compared to peer counties, the 2000-2006 Pap test rate and mammogram rates in Lancaster County are in the middle, higher than three peer counties and lower than four other peer counties. Lancaster County's 2000-2006 proctoscopy rate was the lowest of peer counties.

FIGURE 42



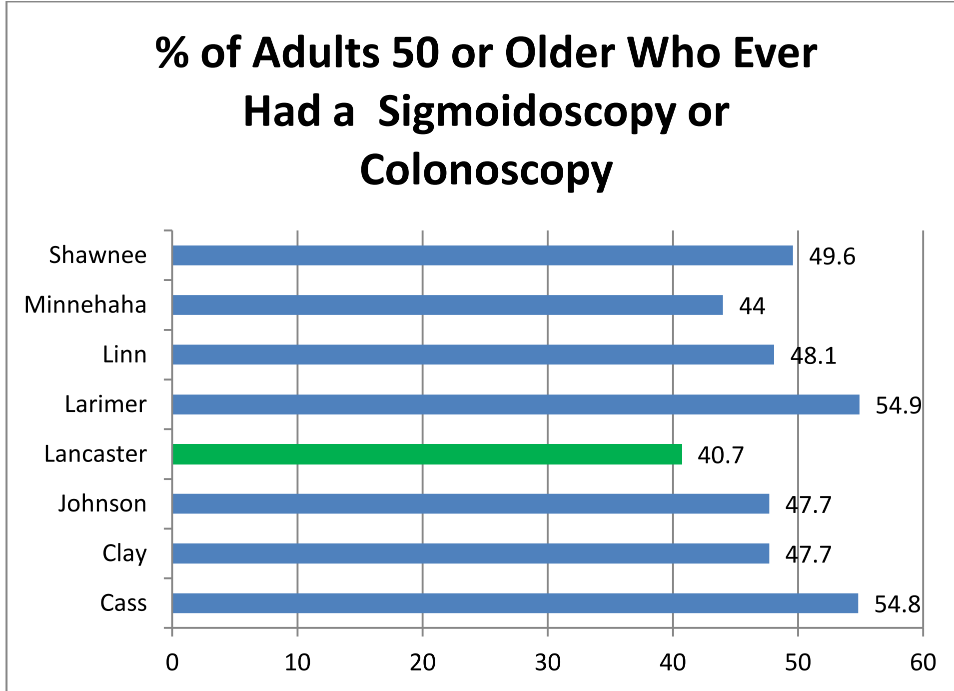
Source: US Dept. of Health and Human Services; Community Health Status Indicators, 2009. Centers for Disease Control Behavioral Risk Factor Surveillance System, 2000-2006.

FIGURE 43



Source: US Dept. of Health and Human Services; Community Health Status Indicators, 2009. Centers for Disease Control Behavioral Risk Factor Surveillance System, 2000-2006.

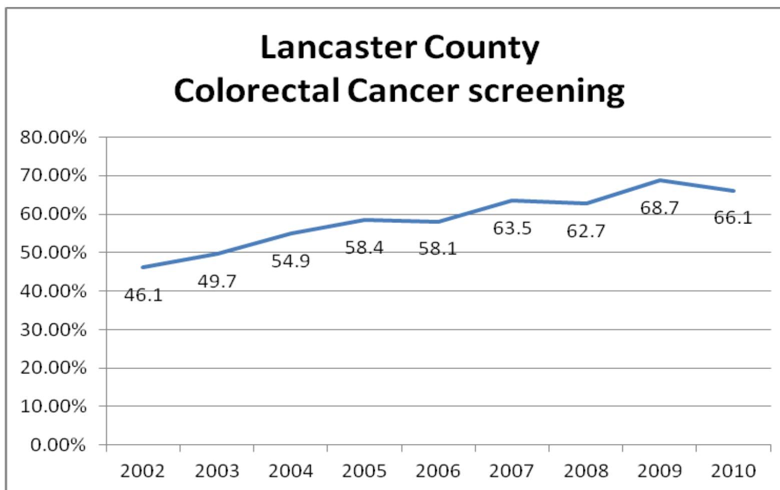
FIGURE 44



Source: US Dept. of Health and Human Services; Community Health Status Indicators, 2009. Centers for Disease Control Behavioral Risk Factor Surveillance System, 2000-2006.

Since 2002, the county's colon screening rate has been on the increase.

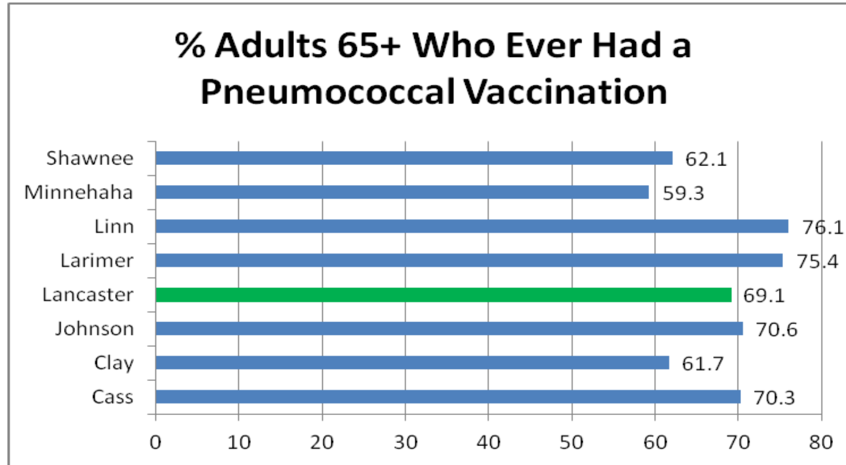
FIGURE 45



The % of adults aged 50 years & older who ever had an exam with a sigmoidoscopy or colonoscopy.
Source: LLCHD - Community Health Status Report - Mobilizing for Action through Planning and Partnerships – 2011

The pneumococcal vaccine rate in Lancaster County is comparable to peer counties with four counties higher and three counties lower than Lancaster County.

FIGURE 46



Source: US Dept. of Health and Human Services; Community Health Status Indicators, 2009. Centers for Disease Control Behavioral Risk Factor Surveillance System, 2000-2006.

Recent data indicates that 27.7 percent of Lancaster County adults over 65 do not get annual flu shots. This is lower than the Nebraska and U.S. rates.

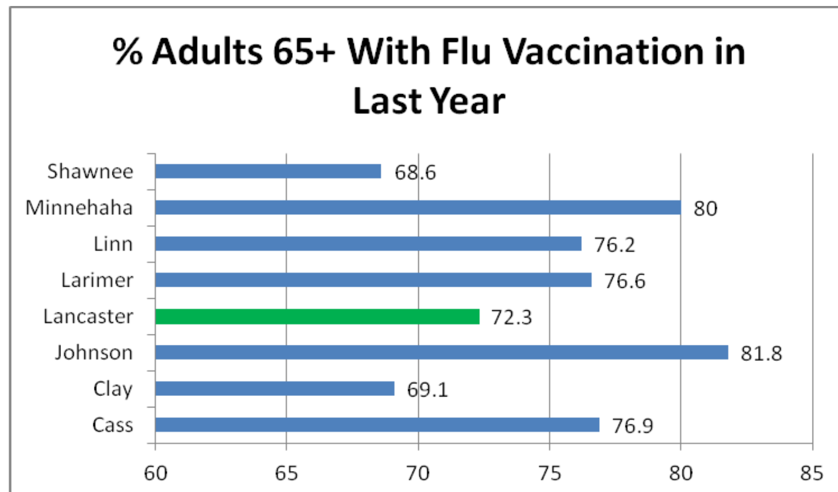
TABLE 15: BRFSS PREVENTIVE SERVICES

	Lancaster County	NE	U.S.(median states, DC)
Adults 65+ reporting a flu shot within past 12 months	72.3%	71.2%	67.4%

Source: LLCHD Draft CHS Report 8/22/2011

When compared to peer counties, the Lancaster County's 2000-2006 rate of flu vaccination was slightly low, with only two counties lower.

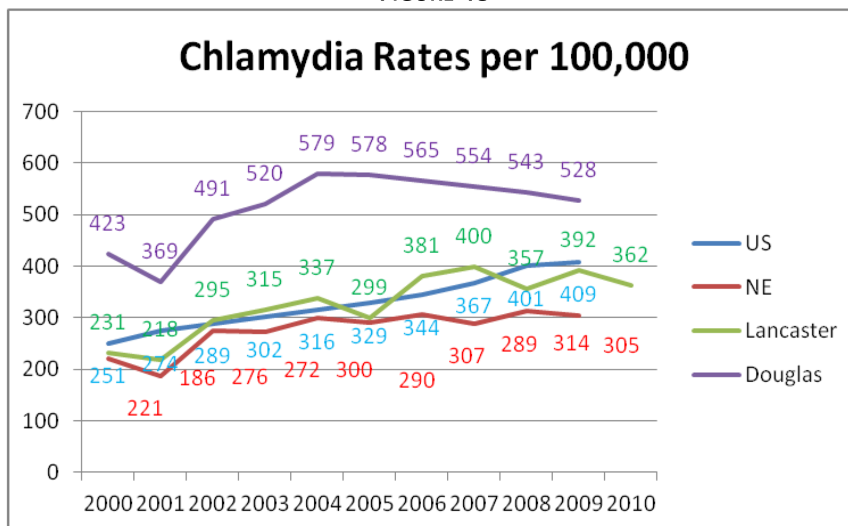
FIGURE 47



Source: US Dept. of Health and Human Services; Community Health Status Indicators, 2009. Centers for Disease Control Behavioral Risk Factor Surveillance System, 2000-2006.

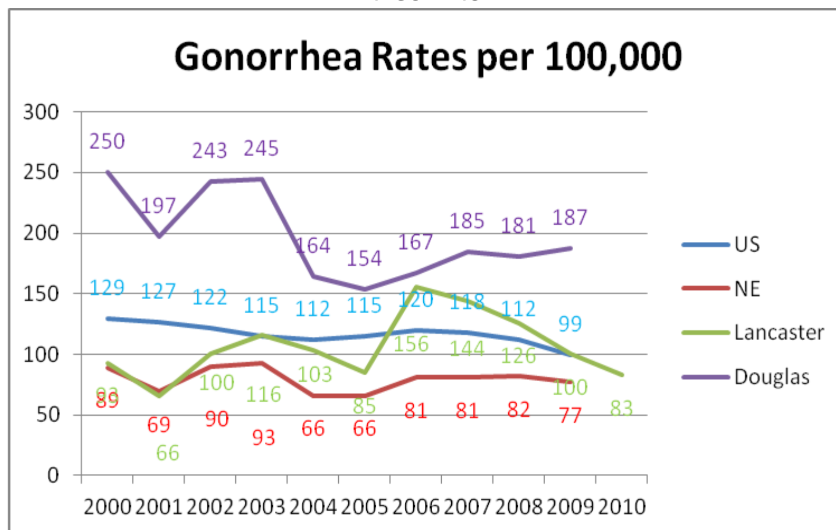
The county's rates for two sexually transmitted diseases, chlamydia and gonorrhea, are favorable in comparison to U.S. and Douglas County (Omaha Nebraska) rates. Only Nebraska rates are lower.

FIGURE 48



Source: LLCHD Draft Community Health Status Assessment 7/28/2011

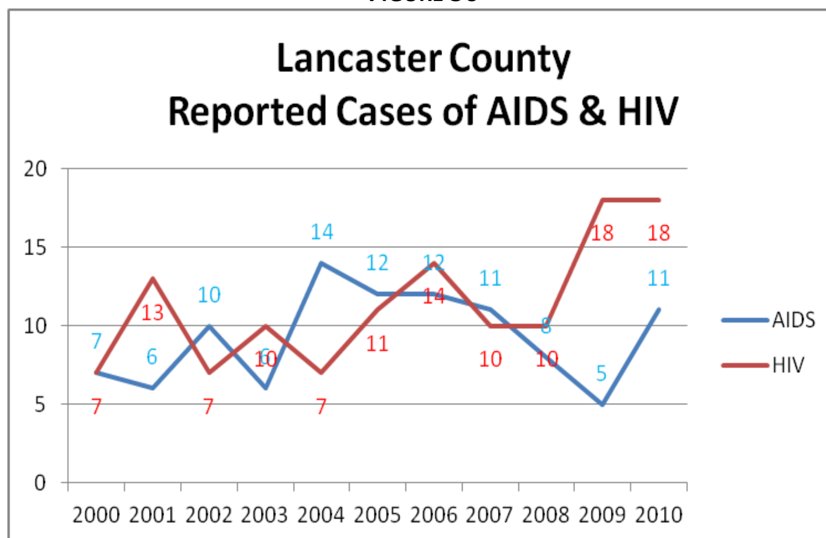
FIGURE 49



Source: LLCHD Draft Community Health Status Assessment 7/28/2011

Since 2000, Lancaster County has seen an increase in reported HIV cases while AIDS cases have been somewhat stable despite an increase in 2010.

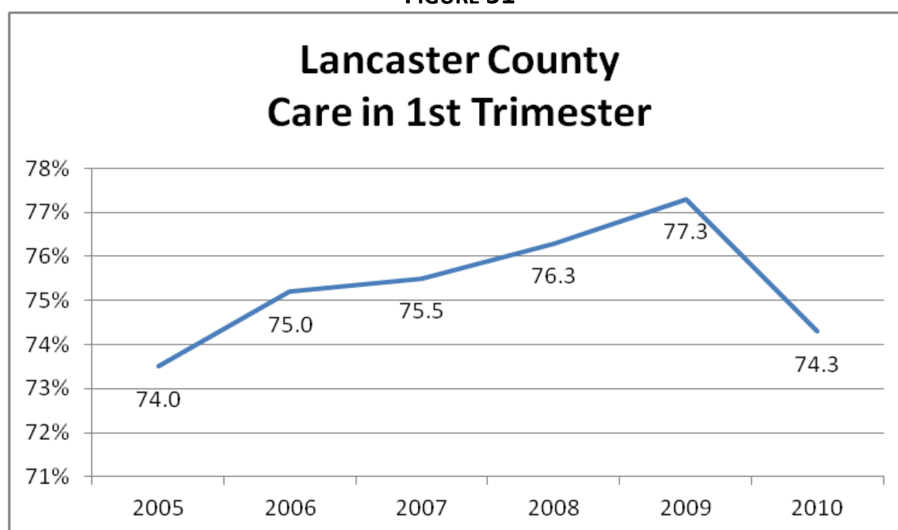
FIGURE 50



Source: LLCHD Draft Community Health Status Assessment 7/28/2011

Data related to prenatal care show two somewhat conflicting trends. A steady increase in prenatal care during the first trimester of pregnancy, which started in 2005, experienced a significant decrease in 2010.

FIGURE 51



Source: LLCHD - Community Health Status Report - Mobilizing for Action through Planning and Partnerships – 2011

However, steady and dramatic growth in the number of women with ten or more prenatal visits continued in 2010. As the following table shows, women least likely to have ten or more prenatal visits are those under 20 and those who are American Indian Alaska Native, Black or Hispanic.

TABLE 16: PRENATAL CARE

	2005	2006	2007	2008	2009	2010
10 or more Prenatal Visits	49.6%	54.3%	61.6%	67.9%	73.4%	77.1%
NE						66.6%
By Mother's Age						
Under 20						67.6%
20-24						72.7%
25-29						79.7%
30+						78.6%
By Mother's Race						
White						70.0%
Black						55.7%
American Indian Alaska Native						45.8%
Asian						63.0%
Other						60.2%
Hispanic Mothers						56.0%

Source: LLCHD - Community Health Status Report - Mobilizing for Action through Planning and Partnerships – 2011

Access to Health Insurance

The uninsurance rate in Lancaster County is higher than the state and U.S. rates, with 20.3 percent of 18 to 64 year olds reporting that they have no access to health insurance.

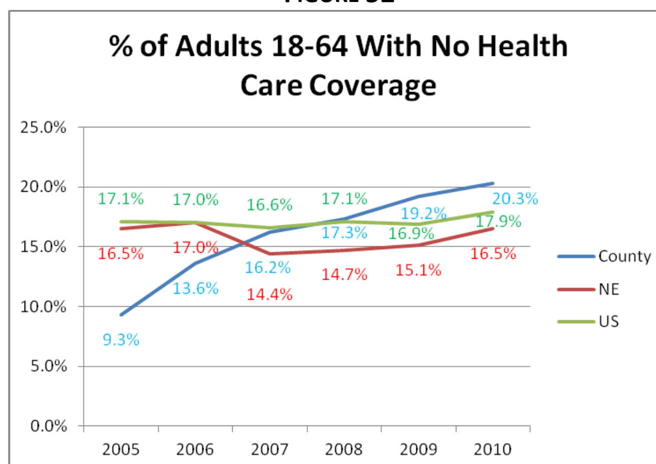
TABLE 17: ACCESS TO HEALTH INSURANCE COVERAGE

	Lancaster County	Nebraska	U.S.
Have no access to health insurance coverage (18+)	16.8%	13.7%	15.0%
Adults aged 18-64 with no health care coverage	20.3%	16.5%	17.9%
Couldn't see a doctor in past year due to cost	11.7%	N/A	N/A
Visited a doctor for a routine checkup	55.3%	N/A	N/A

Source: CDC Behavioral Risk Factor Surveillance System – 2010 – from LLCHD in August meeting

The county rate of uninsurance among working age adults has been higher than the state and the U.S. since 2008 and has been steadily increasing since 2005.

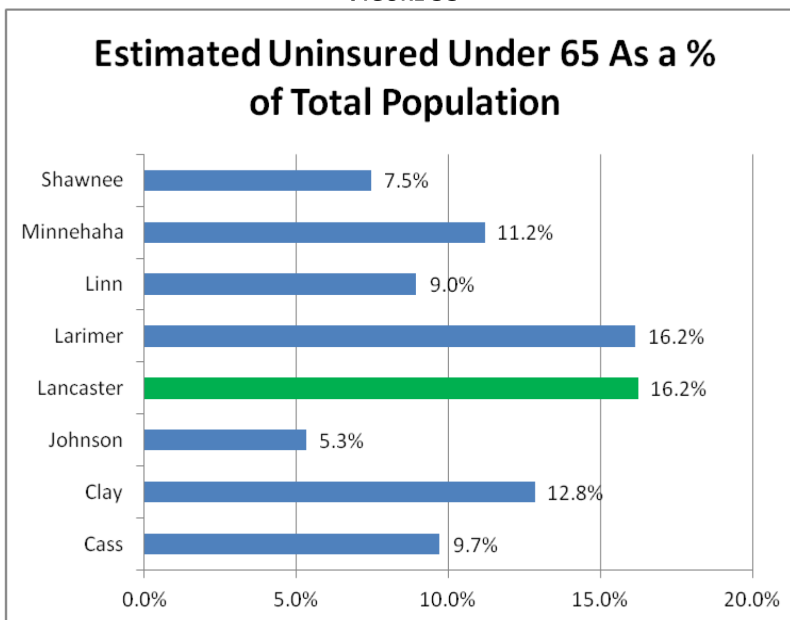
FIGURE 52



Source: LLCHD Draft CHS Report 8/22/2011

As compared to peer counties, Lancaster County's uninsurance rate in 2006 for the under 65 population was the same as one county and higher than all other counties.

FIGURE 53



Source: US Dept. of Health and Human Services; Community Health Status Indicators, 2009. Census Bureau Small Area Health Insurance Estimates 2006

The following table summarizes insurance coverage by age group. Adults in the 18-34 age range are most likely to be uninsured (19 percent), followed by adults 35-64 (12 percent). Children have a 4 percent uninsurance rate while only .5 percent of seniors are uninsured.

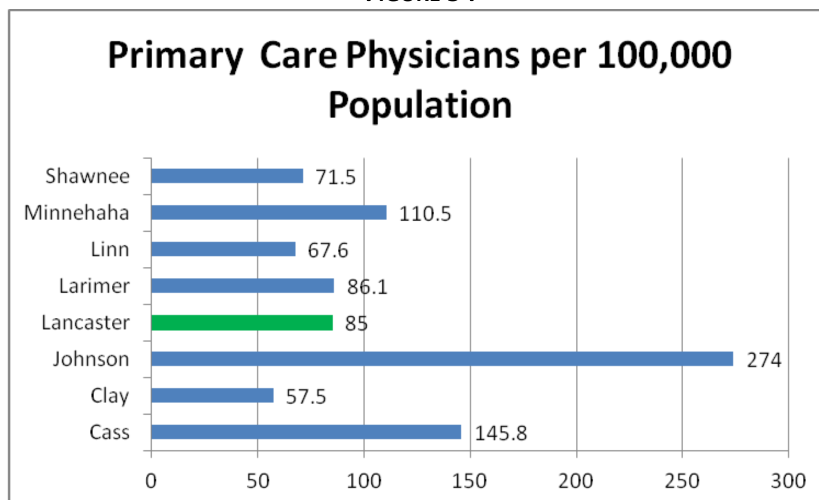
TABLE 18: US CENSUS INSURANCE DATA

	Under 18	18-34	35-64	65+	Total
Employer Sponsored H. Ins. only	38,844	52,801	65,196	381	157,222
Direct purchase private H. Ins. only	3,514	9,730	7,055	220	20,519
Medicare only			483	4,218	4,701
Medicaid only	15,957	4,425	2,185		22,567
Tricare/Military H. Ins. only	250	330	157		737
VA H. Coverage only		412	920		1,332
Medicare and Medicaid		49	1,468	1,304	2,821
Others with more than 1 coverage type	2,999	3,414	8,291	22,442	37,146
No H. Ins. Coverage	2,832	16,642	11,770	139	31,383
Total	64,396	87,803	97,525	28,704	278,428
Uninsurance Rate	4.4%	19.0%	12.1%	0.5%	11.3%

Source: US Census Bureau American FactFinder Website 2009
American Community Survey 1-Year Estimates (90% margin of error)

Lancaster County's 2008 supply of primary care physicians is comparable to peer counties.

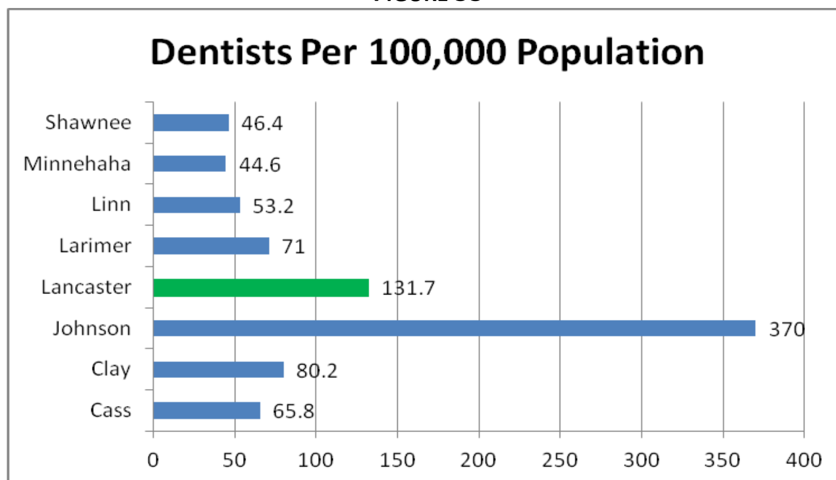
FIGURE 54



Source: US Dept. of Health and Human Services; Community Health Status Indicators, 2009. HRSA Area Resource File 2008

The 2008 county supply of dentists is higher than all but one of the peer counties.

FIGURE 55



Source: US Dept. of Health and Human Services; Community Health Status Indicators, 2009. HRSA Area Resource File 2008

Lancaster County Providers

BryanLGH and St. Elizabeth Regional Medical Center are the primary hospitals serving Lancaster County. Both hospitals serve a geographic area beyond the county.

Lancaster County residents represent 72.1 percent of St. Elizabeth's inpatient services and 67.6 percent of BryanLGH inpatient services.

TABLE 19: INPATIENT ADMISSIONS DATA BY HOSPITAL

	BryanLGH			St. Elizabeth		
PAYER TYPE	DISCHARGES	PATIENT DAYS	Ave Length of Stay	ADMITS	PATIENT DAYS	Ave Length of Stay
MEDICARE	9,445	45,421	4.8	6,271	23,503	3.7
COMMERCIAL	8,843	31,669	3.6	4,669	18,258	3.9
MEDICAID	3,492	14,763	4.2	1,632	10,608	3.9
SELF PAY	1,322	5,015	3.8	540	2,064	4.6
OTHER	959	4,005	4.2	353	980	3.8
TOTAL	**24,061**	**100,873**	4.2	**13,465**	**55,413**	4.1

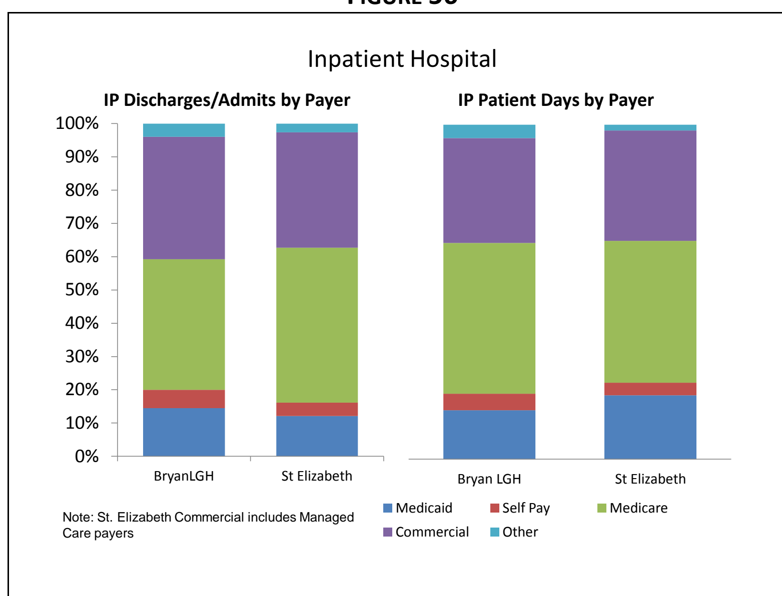
Source: BryanLGH Local Data Store; Fiscal Year 2011. St. Elizabeth Regional Medical Center, fiscal year ending June 30, 2011

TABLE 20: INPATIENT ADMISSIONS DATA BY HOSPITAL - PERCENTAGES

	BryanLGH		St. Elizabeth	
PAYER TYPE	DISCHARGES	PATIENT DAYS	ADMITS	PATIENT DAYS
MEDICARE	39.25%	45.03%	46.57%	42.41%
COMMERCIAL	36.75%	31.39%	35.68%	32.95%
MEDICAID	14.51%	14.64%	12.12%	19.14%
SELF PAY	5.49%	4.97%	4.01%	3.72%
OTHER	3.99%	3.97%	2.62%	1.77%
TOTAL	100.00%	100.00%	100.00%	100.00%

Source: BryanLGH Local Data Store; Fiscal Year 2011. St. Elizabeth Regional Medical Center, fiscal year ending June 30, 2011.

FIGURE 56



Source: BryanLGH Local Data Store; Fiscal Year 2011. St. Elizabeth Regional Medical Center, fiscal year ending June 30, 2011

The most common Inpatient procedure at St. Elizabeth is vaginal deliveries without complications. These make up nearly 10 percent of all inpatient stays, over 25 percent of Medicaid patient stays and 14 percent of Self-Pay stays. Half of the top 10 DRGs for Medicaid and Self-Pay patients are delivery related.

TABLE 21: TOP 10 DRGS ST. ELIZABETH REGIONAL MEDICAL CENTER

DRG	All Patients	% of All	DRG	Medicaid Patients	% of Medicaid	DRG	Self-Pay Patients	% of Self Pay
	13,465	32.63%		1,632	58.39%		540	
775 VAGINAL DELIVERY W/O	1,296	9.62%	775 VAGINAL DELIVERY W/O	411	25.18%	775 VAGINAL DELIVERY W/O	76	14.07%
470 MAJOR JOINT REPLACEM	972	7.22%	766 CESAREAN SECTION W/O	121	7.41%	392 ESOPHAGITIS, GASTROE	20	3.70%
766 CESAREAN SECTION W/O	411	3.05%	765 CESAREAN SECTION W C	110	6.74%	603 CELLULITIS W/O MCC	17	3.15%
392 ESOPHAGITIS, GASTROE	357	2.65%	774 VAGINAL DELIVERY W C	88	5.39%	766 CESAREAN SECTION W/O	16	2.96%
765 CESAREAN SECTION W C	296	2.20%	794 NEONATE W OTHER SIGN	58	3.55%	774 VAGINAL DELIVERY W C	15	2.78%
194 SIMPLE PNEUMONIA & P	285	2.12%	392 ESOPHAGITIS, GASTROE	39	2.39%	794 NEONATE W OTHER SIGN	13	2.41%
774 VAGINAL DELIVERY W C	260	1.93%	203 BRONCHITIS & ASTHMA	35	2.14%	638 DIABETES W CC	11	2.04%
690 KIDNEY & URINARY TRA	192	1.43%	781 OTHER ANTEPARTUM DIA	33	2.02%	765 CESAREAN SECTION W C	9	1.67%
603 CELLULITIS W/O MCC	171	1.27%	792 PREMATURITY W/O MAJO	33	2.02%	419 LAPAROSCOPIC CHOLECY	9	1.67%
794 NEONATE W OTHER SIGN	153	1.14%	791 PREMATURITY W MAJOR	25	1.53%	640 NUTRITIONAL & MISC M	7	1.30%

Source: St. Elizabeth Regional Medical Center, fiscal year ending June 30, 2011.

Psychosis is the most common DRG for patients at BryanLGH, representing 8.7 percent of all hospitalizations, 19.1 percent of Medicaid hospitalizations, and 19.3 percent of self-pay. For Medicaid patients at BryanLGH, 4 of the top 10 DRGs are related to mental disorders or substance abuse and the remaining 6 for delivery or newborn-related DRGs. For self-pay patients, 4 of the top 10 DRGs are related to drug or substance abuse.

TABLE 22: TOP 10 DRGS BRYANLGH

DRG	All Patients	% of All	DRG	Medicaid	% of Medicaid	DRG	Self-Pay	% of Self Pay
	24,061			3,492			1,322	
885 PSYCHOSES	2,093	8.7%	885 PSYCHOSES	668	19.1%	885 PSYCHOSES	255	19.3%
795 NORMAL NEWBORN	1,997	8.3%	795 NORMAL NEWBORN	565	16.2%	881 DEPRESSIVE NEUROSES	109	8.2%
775 VAGINAL DELIVERY W/O COMPLICATING DIAGNOSES	1,394	5.8%	775 VAGINAL DELIVERY W/O COMPLICATING DIAGNOSES	350	10.0%	897 ALCOHOL/DRUG ABUSE OR DEPENDENCE W/O REHABILITATION THERAPY W/O MCC	96	7.3%
766 CESAREAN SECTION W/O CC/MCC	660	2.7%	766 CESAREAN SECTION W/O CC/MCC	175	5.0%	795 NORMAL NEWBORN	31	2.3%
470 MAJOR JOINT REPLACEMENT OR REATTACHMENT OF LOWER EXTREMITY W/O MCC	617	2.6%	881 DEPRESSIVE NEUROSES	157	4.5%	945 REHABILITATION W CC/MCC	29	2.2%
945 REHABILITATION W CC/MCC	509	2.1%	886 BEHAVIORAL & DEVELOPMENTAL DISORDERS	133	3.8%	392 ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS W/O MCC	26	2.0%
881 DEPRESSIVE NEUROSES	507	2.1%	794 NEONATE W OTHER SIGNIFICANT PROBLEMS	95	2.7%	918 POISONING & TOXIC EFFECTS OF DRUGS W/O MCC	25	1.9%
392 ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS W/O MCC	397	1.6%	767 VAGINAL DELIVERY W STERILIZATION &/OR D&C	81	2.3%	603 CELLULITIS W/O MCC	23	1.7%
794 NEONATE W OTHER SIGNIFICANT PROBLEMS	331	1.4%	882 NEUROSES EXCEPT DEPRESSIVE	50	1.4%	638 DIABETES W CC	20	1.5%

897 ALCOHOL/DRUG ABUSE OR DEPENDENCE W/O REHABILITATION THERAPY W/O MCC	289	1.2%	765 CESAREAN SECTION W CC/MCC	40	1.1%	775 VAGINAL DELIVERY W/O COMPLICATING DIAGNOSES	13	1.0%

Source: BryanLGH Local Data Store; Fiscal Year 2011.

Outpatient Services

79.4 percent of St. Elizabeth outpatient patients are Lancaster County residents. Medicaid and Self-Pay are the sources of coverage for 20 percent of the patients receiving OP services. About 20 percent of OP surgeries are covered by Medicaid or through Self Pay. Managed Care includes only commercial managed care payers.

FIGURE 57

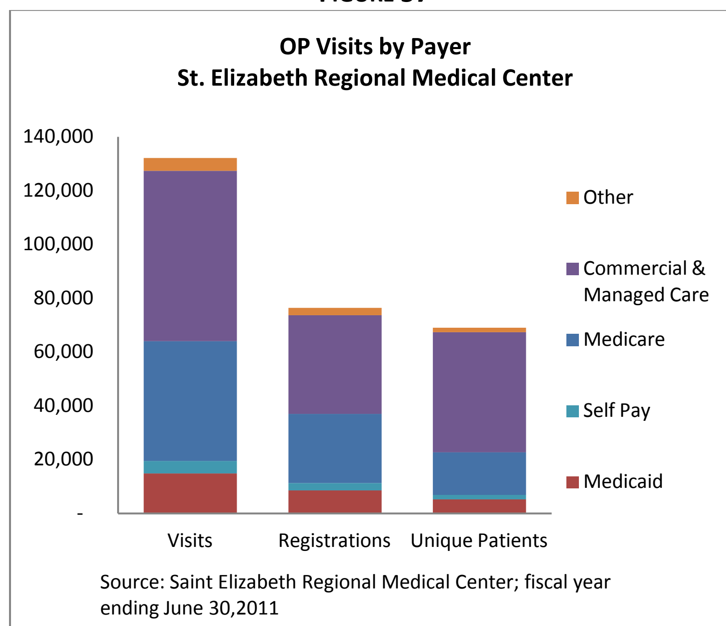


TABLE 23: ST. ELIZABETH OUTPATIENT SERVICES (THERAPIES, DIAGNOSTICS, LABS) BY PAYER

	Visits	Registrations	Unique Patients
Medicare	44,495	25,743	15,800
Medicaid	14,889	8,614	5,287
Managed Care	62,476	36,147	22,185
Commercial	880	509	312
Self-Pay	4,684	2,710	1,663
Other	4,727	2,735	1,679
Total	132,151	76,458	46,926

Source: St. Elizabeth Regional Medical Center; fiscal year ending June 30, 2011

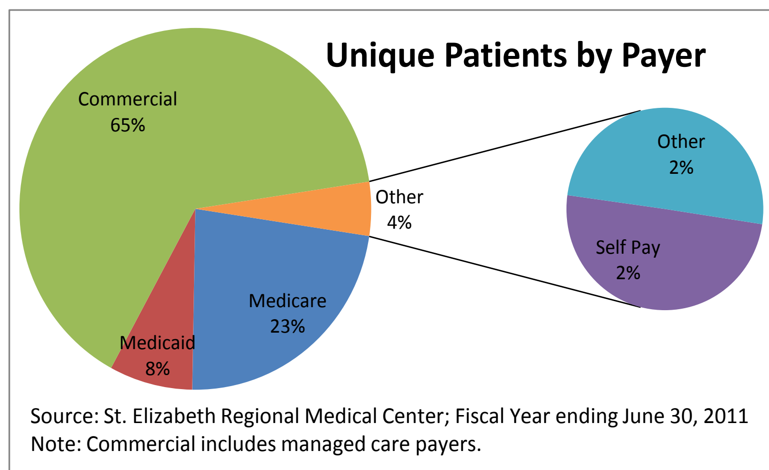
TABLE 24: ST. ELIZABETH OUTPATIENT SURGERIES BY PAYER

Medicare	**1,296**	20.7%
Medicaid	**947**	15.1%
Managed Care	**3,384**	54.1%

Commercial	27	0.4%
Self-Pay	301	4.8%
Other	302	4.8%
Total	6,257	

Source: St. Elizabeth Regional Medical Center; fiscal year ending June 30, 2011

FIGURE 58



83.92 percent of all BryanLGH outpatient patients are Lancaster County residents. For specialty OP services, about 25 percent of patients are covered through Medicaid or are Self-Pay. 12.2 percent of surgeries are covered by Medicaid or by Self Pay.

TABLE 25: BRYANLGH SPECIALTY OP SERVICES BY PAYER

PAYER TYPE	UNIQUE PATIENTS	VISITS	% of Patients
COMMERCIAL	28,816	42,668	43.7%
MEDICARE	13,957	25,365	21.2%
MEDICAID	11,635	21,054	17.7%
SELF PAY	6,722	10,724	10.2%
OTHER	4,764	6,110	7.2%
TOTAL	65,894	105,921	

Source: BryanLGH Local Data Store Fiscal Year 2011

TABLE 26: BRYANLGH OP SURGERIES BY PAYER

PAYER TYPE	OP SURGERIES	% of Surgeries
COMMERCIAL	3,587	60.0%
MEDICARE	1,414	23.6%
MEDICAID	563	9.4%

OTHER		248	4.1%
SELF PAY		167	2.8%
	TOTAL	5,979	

Source: BryanLGH Local Data Store Fiscal Year 2011

Emergency Room Services

Medicaid patients make up nearly 26 percent of patients visiting the BryanLGH emergency room and account for 28 percent of all visits.

TABLE 27: BRYANLGH ER VISITS AND PATIENTS

Payer Type	Total Visits	Unique Patients	Admits	% of Patients	% of Visits
Medicare	12,049	4,725	4,550	13.6%	19.8%
Medicaid	17,076	8,951	1,646	25.8%	28.0%
Commercial	17,658	12,245	2,734	35.3%	29.0%
Self Pay	10,064	5,727	980	16.5%	16.5%
Other	4,053	3,004	587	8.7%	6.7%
TOTAL	**60,900**	**34,652**	**10,497**	100.0%	100.0%

Source: BryanLGH Local Data Store, FY2011 (June 2010-May 2011)

At St. Elizabeth Regional Medical Center, 87.8 percent of visitors to the ER are from Lancaster County. Medicaid accounts for about 21 percent of ER visits.

TABLE 28: ST. ELIZABETH ER VISITS AND PATIENTS

Payer Type	Total Visit	Unique Patients	Admits	% of Patients	% of Visits
Medicare	8,080	5,635	3,810	25.4%	25.4%
Medicaid	6,518	4,546	563	20.5%	20.5%
Managed Care	10,565	7,368	1,869	33.2%	33.2%
Commercial	218	152	35	0.7%	0.7%
Self-Pay	5,144	3,588	519	16.2%	16.2%
Other	1,292	901	123	4.1%	4.1%
TOTAL	**31,817**	**22,190**	**6,919**		

Source: Saint Elizabeth Regional Medical Center; Fiscal Year ending June 30, 2011
Note: the number of unique patients by payer was derived from the distribution of visits by payer.

Aging Partners

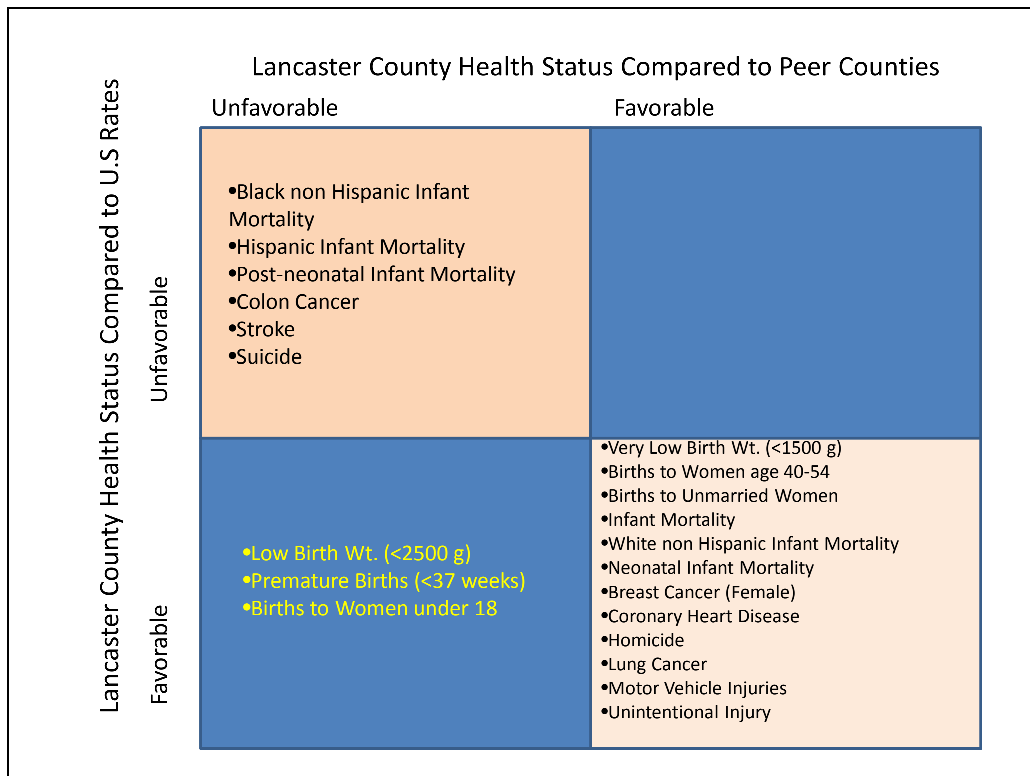
Aging Partners, the Area Agency on Aging in Lancaster, provides various health-related services to uninsured and Medicaid patients. These include adult day health care, assisted living service, assistive technology and supports, home delivered meals, home modifications, nutrition services, personal emergency response system, respite care, and transportation services through the home- and community-based Medicaid waiver to 654 individuals in the 12 months ending June 2011. Also, the Senior Health Promotion Clinic at Aging Partners provides basic primary care services to 700 individuals a year. Through the Harvest Project, Aging Partners and community mental health centers provide intensive case management services to seniors with substance abuse and mental illness diagnoses.

Attachment to Environmental Scan

Comparable Counties

The U.S Department of Health and Human Services compiles demographic and health measures on a county level for all U.S. Counties and allows communities to compare their measures with demographically similar counties in the states and with the U.S county averages. The Community Health Status Indicators for 2009 (CHSI) provides the following summary of favorable and unfavorable health measures for Lancaster County.

FIGURE 59

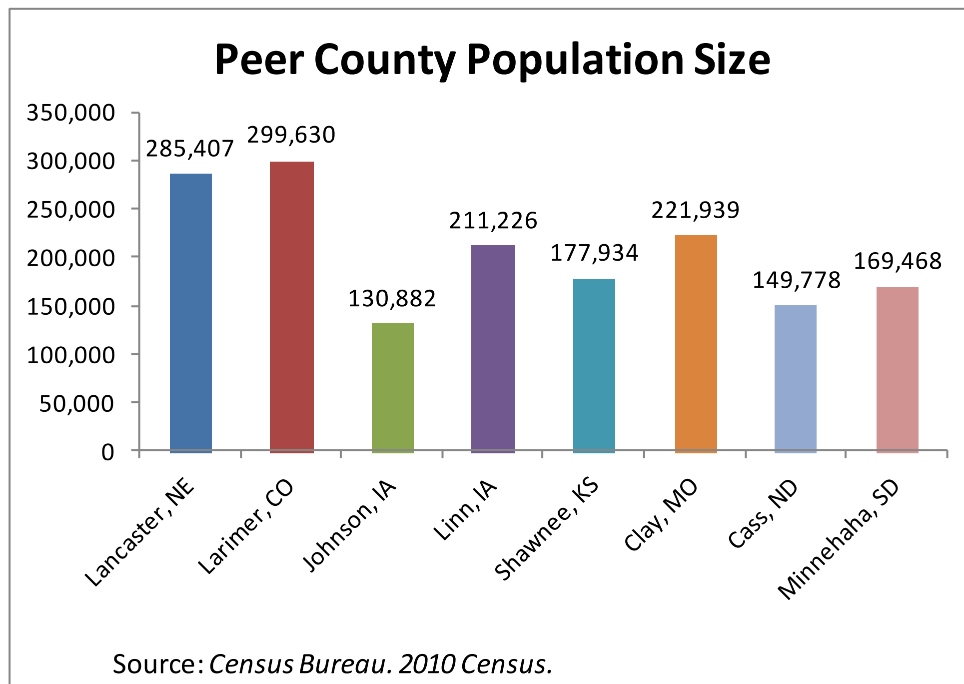


Lancaster County compares favorably to both the US and peer counties on several birth measures, deaths from breast and lung cancer, coronary heart disease, homicide, and injuries from motor vehicles or other sources. The county does not compare favorably to either the U.S or peer counties in measures for black and Hispanic infant mortality, post-neonatal infant mortality, or deaths from colon cancer, stroke and suicide. Lancaster County compares favorably to U.S rates, but unfavorably to peer counties, in low birth weight babies, premature births, and births to women under the age of 18.

Peer counties include 43 counties in 24 states.[4] In the following sections, Lancaster County data is compared to a subset of peer counties that are geographically and demographically closest to Lancaster County.

- Larimer County, CO (Fort Collins)
- Johnson County, IA (Iowa City)
- Linn County, IA (Cedar Rapids)
- Shawnee County, KS (Topeka)
- Clay County, MO (Liberty and partial Kansas City)
- Cass County, ND (Fargo)
- Minnehaha County, SD (Sioux Falls)

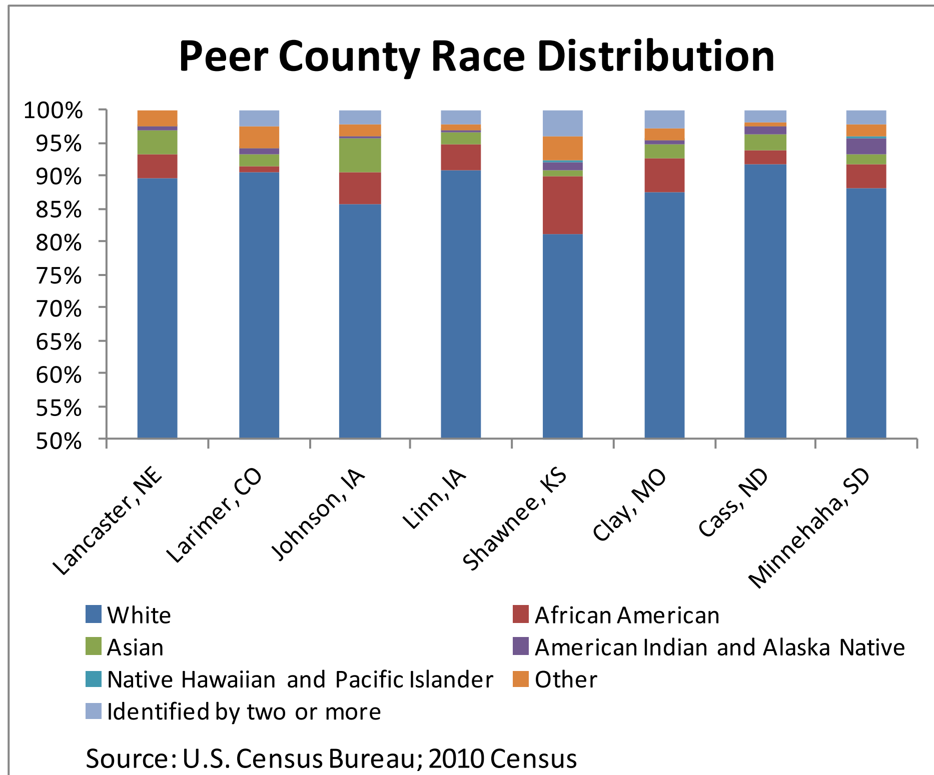
FIGURE 60



The peer county populations range from approximately 131,000 to 300,000. Lancaster County is the second largest of the peer group.

[4] For a list of counties, access CHSI and insert Nebraska and Lancaster in the search box and select Get data. http://www.communityhealth.hhs.gov/Demographics.aspx?GeogCD=31109&PeerStrat=11&state=Nebraska&county=Lancaster.

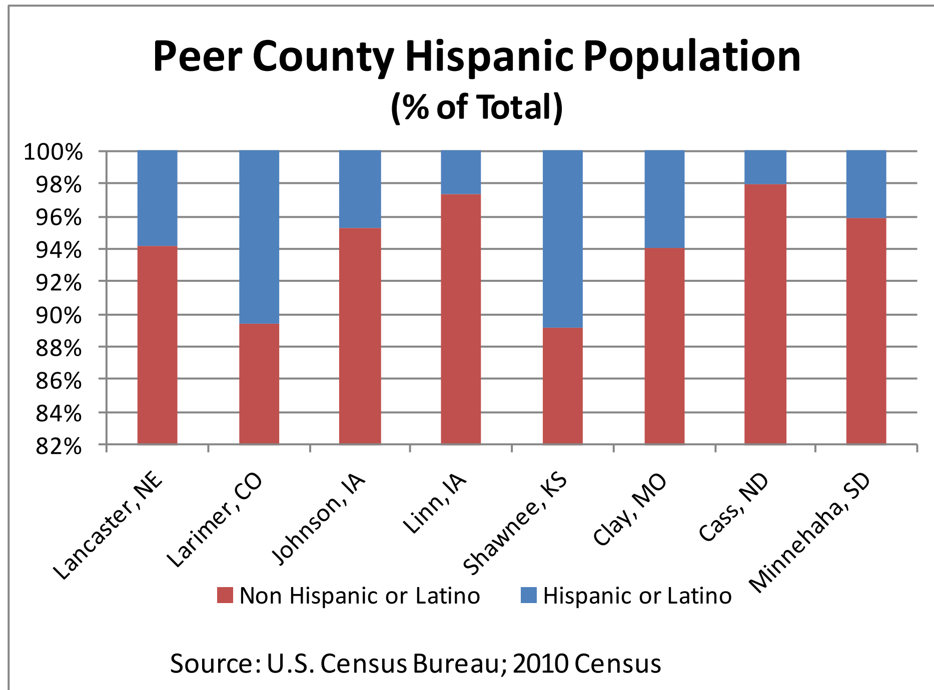
FIGURE 61



All of the peer counties are no more than 20 percent minority with most nearer to or less than 10 percent. The makeup of the minority population varies across the peer counties with Shawnee County, KS having the largest portion of African Americans, and Johnson County, IA having the largest portion of Asians. The distribution in Lancaster County falls somewhat in the middle, with a relatively even distribution of African American, Asian and other race.

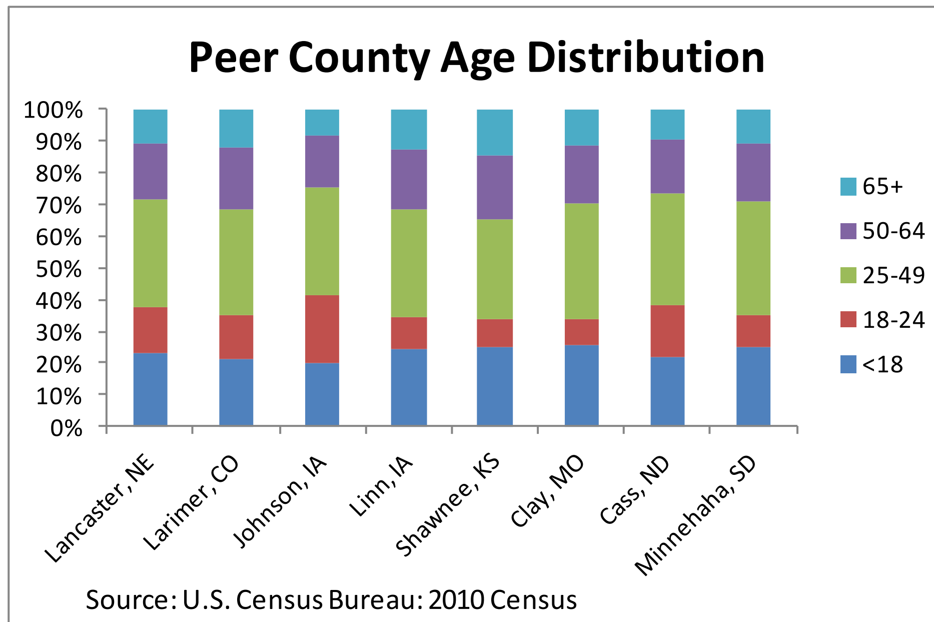
Like race, Hispanic ethnicity varies somewhat across the counties, with Lancaster County falling somewhat in the middle at around 6 percent. Shawnee County has just over 10 percent and Cass County just over 2 percent.

FIGURE 62



The peer counties are all very similar in population age distribution.

FIGURE 63



Appendix C: Health Information Technology Recommendations

Background

There is a paradigm shift in health care delivery from individual and event-focused metrics to quality outcomes and cost containment across entire populations. Payment approaches in Medicaid are moving from fee for service (individual events) to a per person (capitated) arrangement with controls for quality and patient experience. Additionally, the uninsured population is essentially capitated at a near-zero dollar rate. The information technologies designed to support improved accountability of patient care are sensible investments for safety net providers. While providers in Lincoln that care for the uninsured and underinsured are in multiple, disparate organizations, virtual integration is critical in supporting the development of a "system of care" for this population.

The recommendations for Health Information Technology will focus on primary care entities (and their linkages with hospitals) that are caring for the highest concentration of persons covered by Medicaid or who are uninsured: the Lincoln Medical Education Partnership (LMEP), People's Health Center (PHC), as well as the leaders in behavioral health organizations: CenterPoint, the County Community Mental Health Center (CMHC), Cornhusker Place and Houses of Hope. Some of the recommendations (as indicated) will also be appropriate for lower volume voluntary and General Assistance clinics.

Four Categories of Need

The key health information technology needs of caring for a "capitated" population in a system of disparate providers of care include:

- **Data aggregation** and sharing (assumes use of health information technology by individual providers).
- **Reminders for needed care** at the point of care as well as for outreach.
- **Management of diagnostic, specialty and pharmacy resources.**
- **Empanelment** (defining the patient population) and associated reporting on population outcomes.

Data aggregation is successful when medically important information is readily accessible at the time of care and when this same information is available to drive care processes (such as clinical visits, referral approvals and case management and other more routine outreach).

Reminders for needed care are the outcomes of clinical and business rules that direct care team members to undertake particular activities. This includes a day-of-care plan which identifies out of parameter data, missing data and highlights opportunities to fill in gaps in care. Triggers for outreach include lack of medication adherence, a reminder for a care need (such as an immunization or a lab test) or communicating results.

Management of diagnostic, specialty and pharmacy resources is important in any environment, but especially so for specialists in an uninsured environment (in Lincoln as elsewhere). Lincoln has a system of rotating specialty referrals with sliding scale co-pays which is a demonstration of one of the great strengths of the Lincoln safety net: distributed and voluntary charity care. However, the very nature of the distribution could make the efficient exchange of information more difficult.

Empanelment is an important concept in population care. Essentially, empanelment is the process of defining the set of patients that are being cared for. One of the ways Lincoln's ED Connections has been so successful is through "empaneling" the at-risk population of approximately 4,500 frequent ED users. ED Connections has identified these patients over time and having thus defined the population, they are now able to receive notifications when a patient is seen and share clinical information with ED physicians.

At a high level there are two options for Lincoln: shoring up and strengthening the current fragmented information technology infrastructure in the safety net or coordinating the purchase and use of a more comprehensive solution to meet the four categories of need.

Lincoln Safety Net Current and Planned IT Infrastructure:

eBHIN (NextGen)

This is the electronic behavioral health information network. With a unique two stage consent process (at provider submitting information and then again at provider accessing information), certain information will be shared with other providers on eBHIN. This is a shared behavioral health electronic medical record (EMR) on the NextGen platform and will be used by six sites within the Lincoln area. Reporting will be available across the network. Once fully implemented, there will be exchange of a standard behavioral healthcare record, created from day to day operations, between treatment settings.

ED Connections

ED Connections uses a case management module of a popular and growing web-based EMR called Athena Health.

PHC

Peoples Health Center is in the process of implementing NextGen. This is the standard medical EMR and practice management system. PHC has also been using i2i registry, mostly for reporting purposes.

Catholic Health Initiatives (St. Elizabeth's)

EMR implementation in many primary care practices will be occurring through Denver-based CHI. In the outpatient setting the EMR is Allscripts.

Bryan LGH

Bryan LGH's outpatient EMR is also Allscripts.

LMEP

The family practice residency training health center uses McKesson's Practice Partner EMR.

NEHII

NEHII is Nebraska's Health Information Initiative. This Initiative is a federated model Health Information Exchange. Each entity on the exchange will have a repository of health information that the central application will query each time there is a user request. Health information will be stored and retained locally and be viewable through requests. An important issue with this model is that the information is not pushed but rather pulled by request. This makes use for care management more difficult, because if an admission or ED visit occurs, the care manager (often the primary care team) will not know unless they look for that event. It is possible that an application could do a search daily for activity of a defined set of patients (all the patients within the practice), but it is not clear if NEHII would support such a high volume, high frequency automated search. Since this infrastructure is being developed in any case it will be important to clarify this capability. If this capability will be built into NEHII, then this opens a strategy of practices (such as PHC) using NEHII to run in-house care management applications using statewide data (which would include local hospitals).

Potential Comprehensive Approach

The approach that would be truly transformative is a Lincoln-only, non-federated health information platform for patients accessing the safety net. Although this approach would be a very sizable investment, Lincoln represents a perfect opportunity to realize the gains because of the manageable number of providers and the relatively high geographic concentration of the population and the places they seek care and the relatively low turnover in the population.

A comprehensive solution would not have been achievable in even the recent past. However, capacity for fulfilling the key functions described above (data aggregation, reminders of needed care, referral management, and empanelment) is increasing as networks of providers take on financial and quality risk for populations. Independent physician associations (IPAs) in California are in an environment of high managed care and capitated pay arrangements and often compete with a highly integrated system of care in Kaiser/Permanente. Therefore, it is not entirely surprising that IT solutions have germinated from IPAs that promise to fulfill these functions. One such company that is owned by an IPA is Health Access Solutions (HAS). The company was created to serve the management services functions of the IPA, including claims processing and referral management, and progressed to a comprehensive tool for integrated care that includes traditional disease registry functions (see disease registry explanation). In order to take their model to a multi-provider level, Health Access Solutions acquired a data repository technology with a robust master patient index (MPI) that was developed in the United Kingdom and is being used both there and in Canada. Through HAS, this repository is also being used for large populations in California.

So, what would a local HIE with integrative technology look like in the safety net of Lincoln? Three short case scenarios illustrate some examples.

High risk patient in Emergency Department:

A patient with diabetes and congestive heart failure is brought to an Emergency Department (ED) with an exacerbation of their Congestive Heart Failure (CHF). The ED physician is able to see their drug regimen and the fact that the Angiotensin Receptor Blocker (ARB, a life-saving CHF medication that is

quite expensive but needed for some patients that are intolerant to less expensive alternatives) were not filled as expected over the last couple of months. The patient admits that the combination of co-pays for all her medications exceeds her ability to pay. Because the issue is not clinical the patient is not sent to the CHF clinic but rather a referral is sent to ED Connections to provide more intensive support including assistance with co-pays.

Disconnected patient with specialty need:

A volunteer physician is caring for an under-insured (low income with a $2,000 deductible plan) patient with smoking and alcohol overuse. The patient complains of a marked change in voice over several months and the physician is concerned about laryngeal cancer. The referral is entered with clinical information and because of the history the patient is accepted for an office laryngoscopic exam and the referral is automatically routed to the ENT (Ear/Nose/Throat specialist) next up for a referral and is viewable when the patient calls the ENT for an appointment, allowing for proper scheduling type. The patient is found to not have cancer but rather LERD (laryngo-esophogeal reflux disease: acid reflux into the larynx) and is prescribed a Proton Pump Inhibitor (an expensive medicine needed for this condition). Because of the patient's income information (and because the prescription was written electronically) the prescription is routed automatically to the Medication Assistance Program and the patient is assisted in obtaining the medication. The combination of risk factors (alcohol overuse, smoking, LERD) creates a referral to primary care and the patient is empanelled to a geographically close provider at an FQHC. This care team reaches out to the patient and assists the patient over time in behavior change/harm reduction.

Severe mental illness and chronic disease:

A patient is seen regularly in a behavioral health center and also is seen at an FQHC for hypertension and hypercholesterolemia. The patient has their blood pressure taken at each visit at the behavioral health center. The behavioral health center psychiatrist also orders the lipid profile when determined to be needed on a shared care plan. The primary care physician is alerted to increased blood pressure if the patient was determined to be adherent to medications and calls the patient to increase the drug regimen. The patient is co-managed with information shared from both care environments, making successful chronic disease control more likely.

Such an integrated system would both improve care and increase capacity within the safety net. The savings would accrue from less duplication of tests, reduced demand on the ED, and most notably, avoided complications of chronic disease which would result in decreased hospitalizations, procedures and ongoing treatment of avoidable complications (e.g. dialysis, stroke rehabilitation, amputation, ulcers, diabetic retinopathy, etc.) (For complete functionality, refer to: *www.hasinc.com.)*

Recommendation:

Further steps to integrate clinical information are needed and desired by safety net population providers. Lincoln needs a forum in which these choices can be vetted and decisions made. Additionally, the strategic and operational expertise must be brought to bear to bring these multi-institutional decisions to fruition. We suggest a decision making body to consider the costs and benefits of an integrative, comprehensive solution such as Health Access Solutions.

Contact:

Nick Bennett, Director of Client Development, Health Access Solutions, 206-650-9804.

Estimated Budget:

Front end costs are estimated at a total of $2 to $4 million over an estimated 3 year implementation period. Annual maintenance and licensing fees will be approximately $10 per member per year or around $500,000 for the target population per year.

Implementation Steps:

- Organize Council/lead to coordinate project.
- Begin process to secure funding.
- Engage potential vendor to do presentation on concept.
- Conduct due diligence on vendor and concept, i.e., talk with vendor clients.
- Secure funding.
- Contract with vendor to implement system.
- Develop detailed implementation plan.
- Implement and evaluate.

In Lieu of a More Comprehensive and Costly Solution…

Incremental Enhancements of the Current IT Infrastructure:

1- Electronic Population Health Management Application to Improve Care Management for the Target Population

Background and Recommendation:

As health care reimbursement is increasingly tied to quality outcomes, a Population Health Management (PHM) application can improve quality measures and reduce staff time and costs in communication and administrative tasks. At the practice level, a Population Health Management system tied to the Electronic Health Record (EHR) is the informatics backbone.

In a typical Electronic Health Record, data can be queried but there are significant limitations. EHRs can be used to identify patients overdue for preventive screening tests or patients with a chronic disease needing a single lab test. To identify patients, for example, with diabetes who are overdue for an appointment, do not have an appointment scheduled, and are outside the targets for three common lab tests would require four separate queries and then manual reconciliation. While this type of data query may be possible with an EHR, it would be a cumbersome, multi-step, multi-application process and the effectiveness difficult to determine.

The PHM system is interfaced to an EHR and provides a comprehensive tool-set for identifying populations of patients, engaging them in their care, documenting encounters, and reporting on demand. For performance improvement efforts, the care team has access to data for each population and sub-population, making it possible to measure the effectiveness of interventions, refine them and spread those that have proven successful.

While the EHR is focused on capturing the data, the Population Health Management system takes the data, aggregates it and supports action. Specific action is supported by reporting tools designed for clinical data, whereas Electronic Health Records require a data analyst to develop and customize clinical reports that can be time-consuming and costly.

There are several Population Health Management Systems that are taking hold across the country: i2i Systems, WellCentive, and DocSite are among the leaders.

People's Health Center is planning implementation of an EHR, NextGen, which has very little to offer in the way of registry functionality. PHC is currently using i2i Systems for selected reporting purposes, though not as a population health management tool. (For complete functionality, refer to: www.i2isys.com.)

Recommendation:

We recommend that People's Health Center work with i2i Systems to determine how to use the solution optimally as a population health management tool in conjunction with NextGen. We recommend that others serving a large portion of the Medicaid and uninsured populations in a continuous manner, consider using this tool as well, i.e., the Lincoln Medicaid Education Program.

> *Contact:*
> *Janice Nicholson, CEO, i2i Systems.707-575-7100 x115.* janicen@i2isys.com

Estimated Budget:

i2i Tracks (and other registries of this type) have a pricing structure that includes both a one-time fee to purchase user licenses and an annual maintenance and support fee. People's Health Center currently has a limited number of user licenses and would need to purchase additional licenses to use the system optimally for population health management. Given that Tracks has already been purchased by PHC, for every additional 5 user licenses, i2i Systems would charge approximately $10,000. Annual maintenance and support costs are approximately 20% of the total license fees. We estimate they would need another 5 user licenses for PHC staff.

If the Lincoln Medical Education Program (LMEP) were to operate jointly with People's Health Center and chose to adopt the same electronic health record as PHC (NextGen), additional licenses and annual fees would be charged at the rate above. If LMEP maintained use of its current electronic medical record (Practice Partner), additional costs would be borne as initial set up would be required.

In addition, one or more Super-Users would need to be trained to train staff in the health center. The Super-User Training is priced at $3000 for a 4 day intensive training. A population analytic report writing training is provided at no charge for Super-Users in Santa Rosa, CA and is charged at $1500/day plus travel if training staff were to come to Lincoln.

Implementation Steps:

- Organize Council/lead to coordinate project.
- Engage i2i Systems to conduct a presentation of the Population Health Management System for community of primary care provider organizations.

- People's Health Center works with vendor to optimize use of PHM System.
- People's Health Center serves as learning laboratory for optimal use of PHM System for community of primary care provider organizations.
- Other primary care provider organizations implement i2i Systems.

2- Connect PHC NextGen registry to eBHIN

Given the shared NextGen platform, it would seem possible for PHC to directly (with consent, of course) integrate the records contained in eBHIN. This would allow PHC providers to view the behavioral records without logging into a separate system (a large barrier). In theory, this would also allow eBHIN users to also integrate key medical information from PHC. However, it is not clear to what extent eBHIN is prepared to gather and exchange medical information.

Recommendation:

We recommend that an organization formed to define and implement the IT plan for the Lincoln Safety Net further explore the technical feasibility and the costs of integrating the PHC EMR and eBHIN.

3-Web-based Communication Systems for Management of Specialty, Diagnostic and Pharmacy Resources

Background and Recommendation:

Clinic Entrance Rules for Specialty and Diagnostics

The problem of providing appropriate and timely specialty care to the uninsured is national in scope. Projects featuring a reorganization of the delivery system and new approaches to financing at the local level have great potential to point the way to longer-term policies.

In this spirit, the Cook County Health and Hospital System in Chicago designed a web-based specialty referral system featuring specialty clinic entrance rules to prioritize patients based on clinical acuity, reduce inappropriate referrals that generate avoidable costs, and provide educational guidelines based on "best practices" to keep patients appropriately managed in primary care. Primary care providers are required to use this system to refer patients into specialty care in the System.

When the system was first implemented in the late 1990s, it rejected 23% of referrals (deemed inappropriate) resulting in an improved use of valuable specialty appointments. Examples of inappropriate referrals include those where the primary care provider did not order a diagnostic test required by the specialist, or did not treat the patient based on standard practice prior to making a referral.

Currently, the web-based specialty referral system in Cook County is receiving approximately 10,000 referrals per month from 195 clinical sites. Cook County has been widely recognized for this innovation and received a Safety Net Award from the National Association of Public Hospitals for this program. An electronic version of the clinical entrance rules is publically available to safety net institutions upon request.

Contact: Enrique Martinez, MD, John H. Stroger Hospital of Cook County. 312-864-7589. emartinez1@ccbhs.org

Maintenance of Clinic Entrance Rules

The specialty referral rules require maintenance; rules need to be updated regularly and may need to be adapted for unique community circumstances. Specialists need to update the rules and primary care providers need to "buy in" to the rules. For each specialty area, a specialist must be identified who will commit to regularly updating the rules in his or her specialty. Rule revision meetings might best include the specialist, a high level administrator, and a lead primary care provider (perhaps a medical director) from each of the referring community health centers. The group starts with a set of the Cook County rules; the specialist reviews the rules and leads a discussion as to what changes he or she would like to make, if any. Changes are typically based on new clinical evidence or guidelines, or specialty supply and demand issues in the community. The changes are explained, justified, negotiated and resolved in the group. The medical directors can then introduce the rules in an informed way to the primary care providers in their sites.

Operating the Rules

The clinical rules are most efficiently run by a web-based software engine. Safety Net Connect is the health information firm we would recommend that has the technology to incorporate specialty referral rules in a web-based referral product available to be purchased. This system can also generate key reports for local decision-making related to specialty services.

Contact:
Keith Matsutsuyu, Safety Net Connect, 714-803-0552. KMatscg@gmail.com

Pharmacy Resources

Like specialty and diagnostic services, the problem of providing appropriate and timely pharmacy resources to the uninsured is pervasive. Rules for approval of critical medications could be created, maintained and operated similarly to those for specialty and diagnostic services. For instance, a provider at PHC might want to continue a patient on an Angiotensin Receptor Blocker (ARB) for their hypertension, but the patient is newly uninsured and cannot afford the medication. The rules could be built to guide the clinician towards an ACE Inhibitor and the patient could have their $4 co-pay covered if they qualified. If the patient was determined to need the expensive ARB, then questions and auto-fills could complete the assistance paperwork for the pharmaceutical company. In addition, approval for the first month's medication could be completed and sent to the pharmacy.

To reap significant system savings, we believe the Medical Society's medication assistance fund would need to be increased significantly from the current $2000 per month. For patients needing medications to control diseases such as CHF, seizures and diabetes where complications of non-adherence are dramatic and result in hospital stays, savings would be realized on the hospital side.

Other

This web-based technology infrastructure can be built on in the future for additional collaborative efforts to improve efficacy and efficiency of the health care safety net in Lincoln. For example, an e-

Consult system could easily be added. This is a system that enables a primary care provider to request an electronic consultation from a specialist for a patient, potentially avoiding a specialty visit or enabling the primary care provider to initiate treatment (under the guidance of a specialist) before a specialty appointment is available.

If, in the future, a more managed approach for this population is undertaken, e.g., where the target population is empanelled (has an assignment to specific primary care providers,) additional functionality could be added to improve transition care from hospital to primary care. A solution such as ERConnect, could use the same web-based portal. In a community, ERConnect is implemented in both primary care practices and hospitals to facilitate bi-directional communication between them. It uses patient assignment data (e.g., an assignment through Medicaid or a “health plan” for the uninsured), and upon hospital/ED registration, automatically notifies the patient’s primary care provider of a hospital admission or emergency room visit. An HL7 ADT feed is used which doesn’t require the hospital/ED to do anything but register the patient for the notification to be sent. The electronic notification is sent in near real time. The primary care provider organization conducts outreach to bring patients in to help reduce risk of readmission and inappropriate emergency room visits.

Recommendation:

We recommend that a web-based communication system be introduced to safety net providers in Lincoln to create a means for effective service use and efficient communication. Given that the target population doesn’t have a primary care provider assignment, we recommend this communication system start with functionality that doesn’t require an assignment such as referral for specialty and diagnostic services, and pharmacy resources.

Estimated Budget:

The cost for setting up the infrastructure and operating bi-directional referrals, i.e., specialty/diagnostic referrals, and referrals back to the primary care provider, would be in the range of $85,000 to $150,000. The complexities presented by the patient and provider base would influence the cost. A recurring monthly fee would range from between $5,000 to $7,000.

Implementation Steps:

- Organize Council/lead to coordinate project.
- Begin process to secure funding.
- Obtain and review rules from Cook County.
- Engage potential vendor to do presentation on concept.
- Conduct due diligence on vendor and concept, i.e., talk with vendor clients.
- Secure funding.
- Contract with vendor to implement e-referral system.
- Develop detailed implementation plan.
- Implement and evaluate.