BARNES-JEWISH ST. PETERS HOSPITAL COMMUNITY HEALTH NEEDS ASSESSMENT AND IMPLEMENATION PLAN 2013

BARNES-JEWISH St. Peters Hospital | BJC HealthCare

OUR MISSION: TO IMPROVE THE HEALTH OF THE PEOPLE AND COMMUNITIES WE SERVE

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I. EXECUTIVE SUMMARY:

Barnes-Jewish St. Peters Hospital opened its doors in 1980. Since then, the hospital has been a leader in the delivery of quality health care services and serves as a role model in building sustainable and effective community partnerships.

In the Patient Protection and Affordable Care Act (PPACA) passed in March 2010, non-profit hospitals were mandated to conduct a community-based needs assessment every three years. As part of the mandate, hospitals must define their community. Barnes-Jewish St. Peters Hospital, located along the Interstate 70 corridor in St. Peters, Missouri, has defined its community as St. Charles County.

The hospital, in collaboration with Progress West Hospital, conducted external focus groups with representatives from multiple community organizations in September and October 2012. The groups identified the top health needs in the county as: obesity, mental health, substance abuse, health literacy, dental health, children, access, cancer, chronic conditions, seniors and smoking.

In two meetings, held in December 2012 and January 2013, an internal workgroup composed of hospital clinicians from multiple specialties reviewed the focus group findings and gave input based on their expertise. The group consisted of physicians; nurses; and specialty clinicians from cardiology, oncology, pediatrics, diabetes, case management, dietary, community health, etc.

Their task was to formulate a list of community health needs based on their subject expertise and then rank order the needs. The internal workgroup identified the following needs in order of priority: access, mental health, obesity, smoking/tobacco, cancer, medications, dental health, lifestyle/nutrition/sedentary, diabetes, substance abuse, health literacy, seniors, and children.

The Community Benefit Team (CBT), a subset of the internal workgroup, reviewed secondary data as further validation of the groups' findings. Sources were: Healthy Communities Institute, Thomson, National Cancer Institute, Environmental Protection Agency, US Census Bureau, US Department of Education, and other national, state, and regional sources.

The CBT also considered the Healthy People 2020 document. An initiative of the US Department of Health and Human Services, Healthy People 2020 provides evidence-based, 10-year national objectives for improving the health of all Americans. These goals encourage collaborations across communities and sectors, empower individuals to make informed health decisions, and measure the impact of prevention activities. The 2020 goals were set using the 2010 census data as a baseline.

The CBT prioritized the top 12 needs using the Hanlon and PEARL Methodology Priority Ranking*. These are the results.

1. Chronic Conditions
2. Smoking
3. Obesity
4. Health Literacy
5. Access
6. Cancer
7. Lifestyle/Sedentary/Nutrition
8. Mental Health
9. Children
10. Seniors
11. Substance Abuse
12. Dental

The CBT recommended that the hospital continue or implement programs in the following areas:

1. Chronic Conditions
2. Smoking
3. Obesity
4. Access

The hospital has a number of existing initiatives to address the three health needs. Additionally, any decline in smoking rates and obesity levels should benefit individuals with chronic conditions.

The Senior Leadership Team approved the prioritization and implementation plan. Final approval of the CHNA and Implementation Plan was provided by the hospital's governing board and BJC HealthCare Community Benefits Board of Directors.

*Hanlon and PEARL Methodology Priority Ranking

- Component A = Size of the problem
- Component B = Seriousness of the problem
- Component C = Estimated effectiveness of the solution
- Component D = PEARL factors (propriety, economic feasibility, acceptability, resource availability, legality)

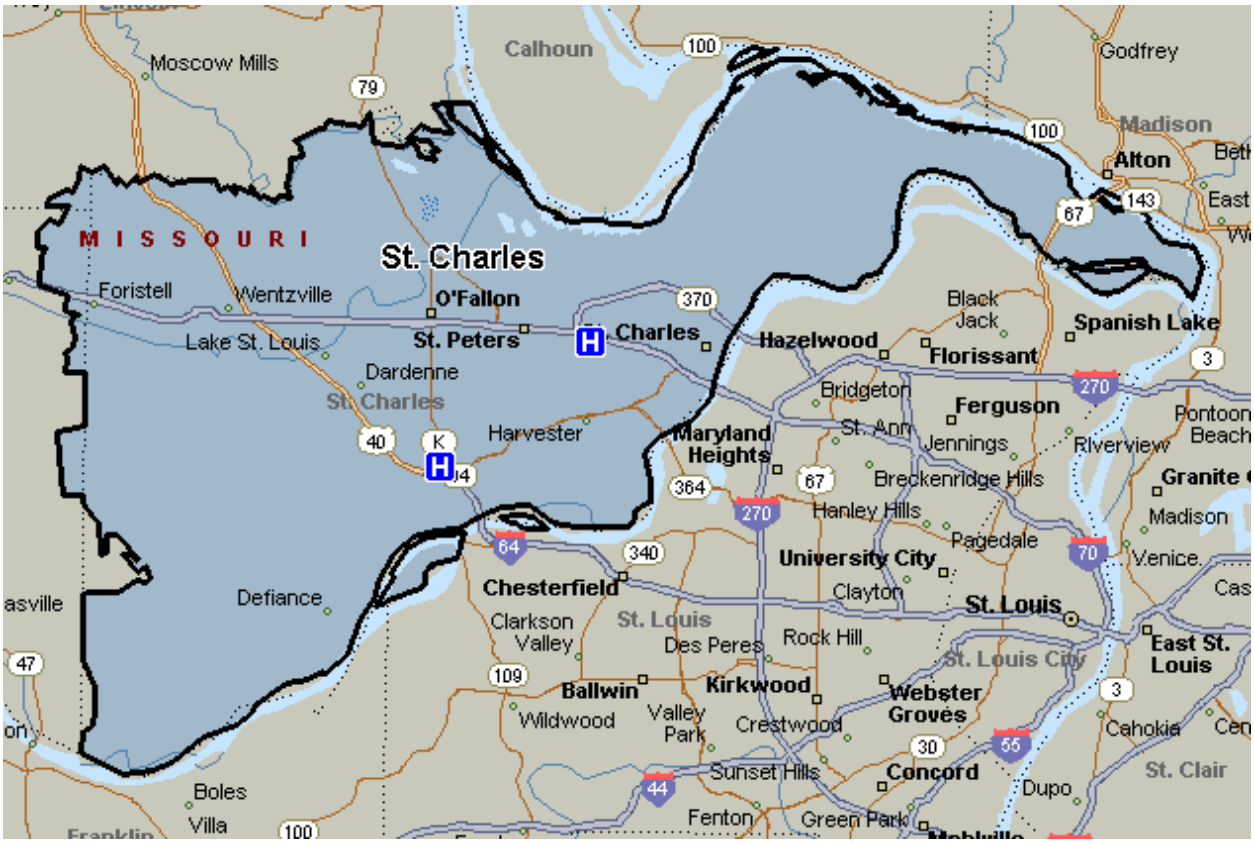
These components translate into two formulas that provide a numerical score that gives highest priority to those diseases/conditions with the highest scores.

II. COMMUNITY DESCRIPTION

Barnes-Jewish St. Peters Hospital is located in St. Charles County in the City of St. Peters, Missouri. For the purpose of this CHNA the hospital's defined community is St. Charles County. Barnes-Jewish St. Peters Hospital inpatient discharges from St. Charles County comprised 83 percent of their total inpatient discharges in 2012.

St. Charles County Map

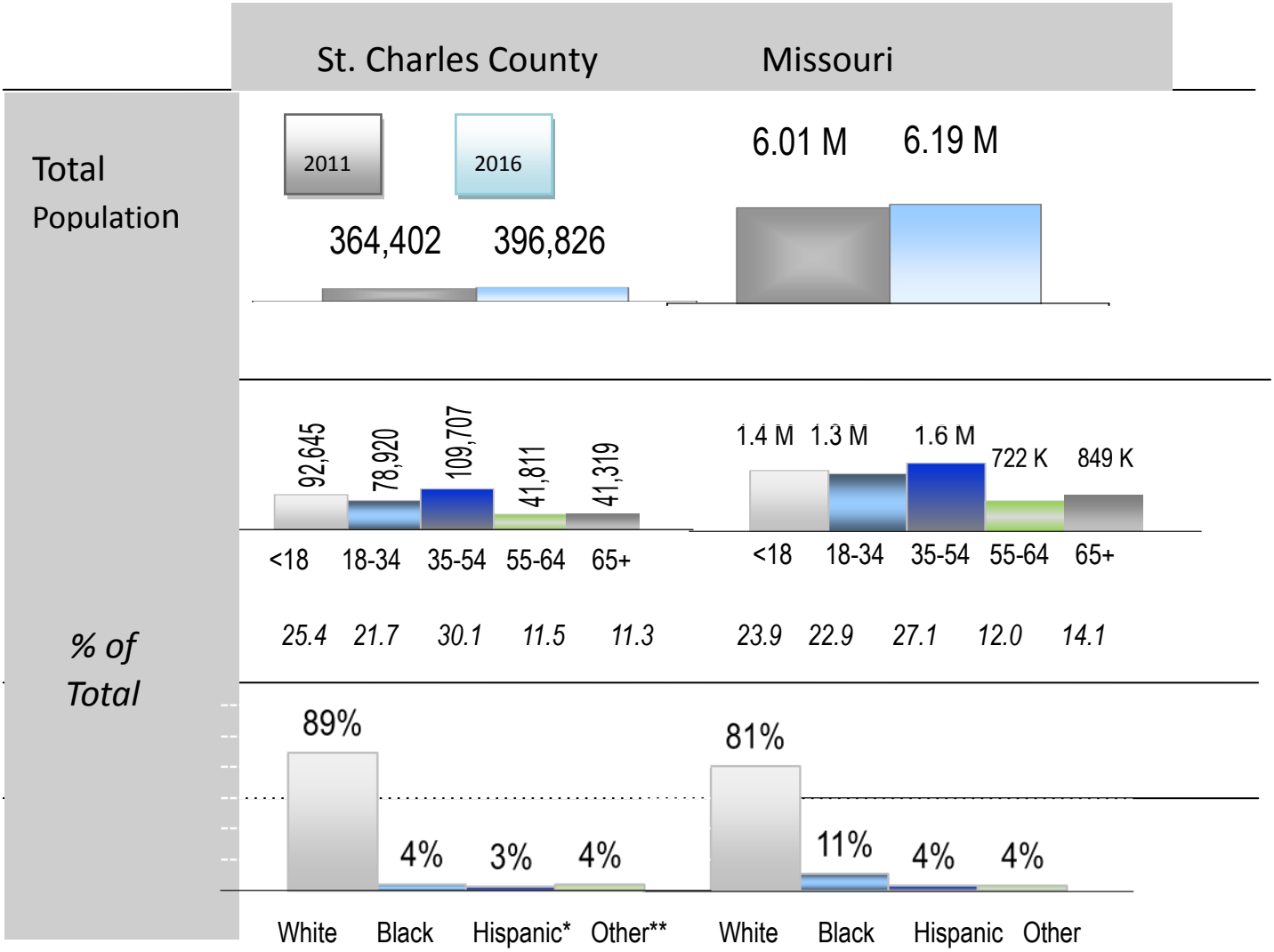
Barnes-Jewish St. Peters Hospital is located along the Interstate 70 corridor in Eastern/Central St. Charles County.



Geography	St. Charles County	Missouri
Land area in square miles, 2010	560.44	68,741.52
Persons per square mile, 2010	643.2	87.1
Metropolitan or Micropolitan Statistical Area	St. Louis, MO-IL Metro Area	

Source: US Census Bureau State & County QuickFacts

Demographics



While there is some variance in population depending on the source, the 2011 St. Charles County population is 365,000. All age segments are expected to grow in the coming years.

The county experienced a 25.2% population increase between April 1, 2000 and July 1, 2009. During that same timeframe Missouri experienced only a 7 % population increase (Source: Zanola Company, LLC; August 30, 2011 report to EDC).

In 2009, the county's median age was 36.3. The median age is trending older with 2014 projections at a median age of 37.4.

The county is 89 % White non-Hispanic; the remaining 11 % is comprised of African American at 4%, Hispanic at 3% and all others at 4%. The county's diversity has increased slowly over the past decade.

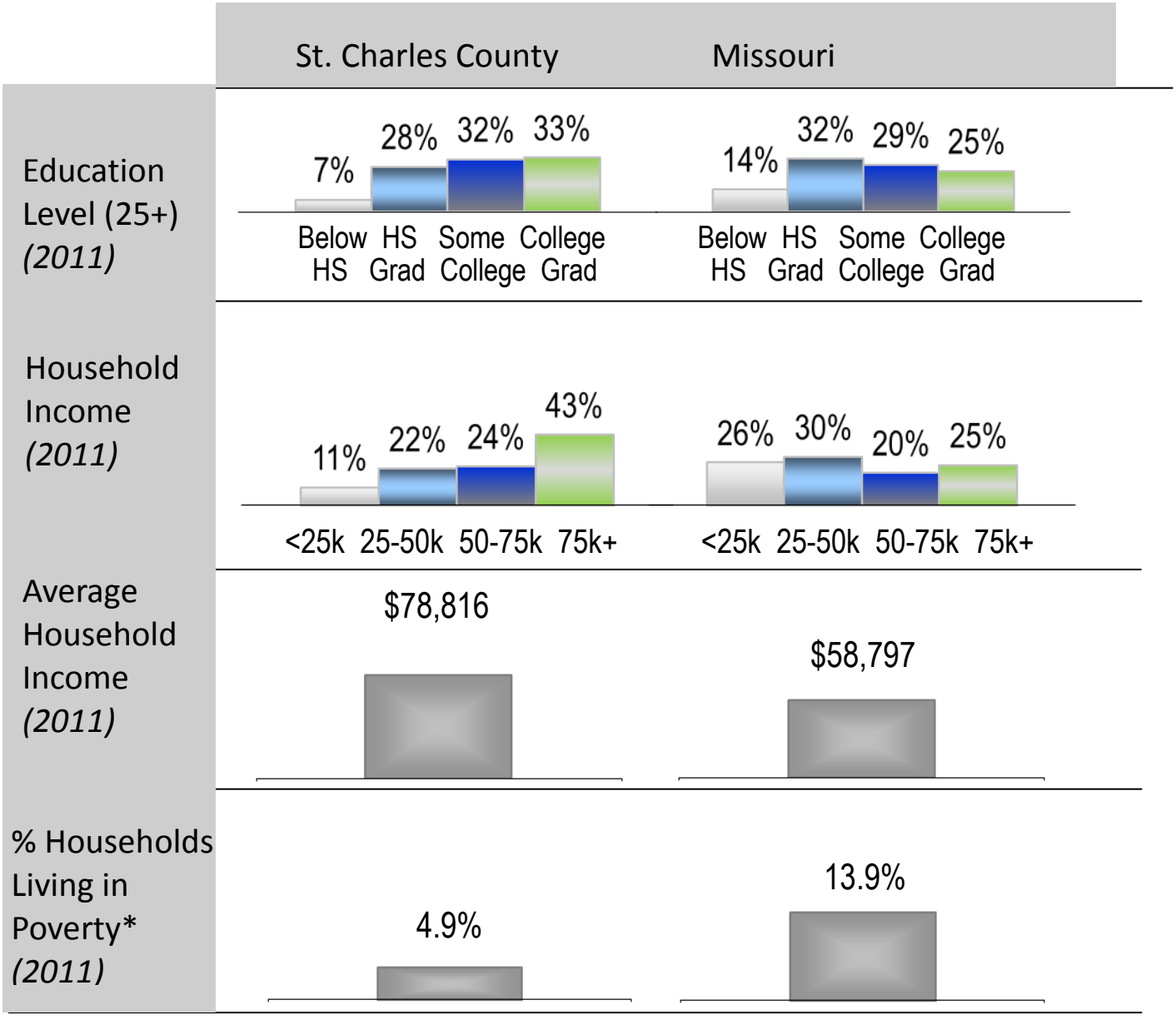
Population	St. Charles County	Missouri
Population, 2011 estimate	365,151	6,008,984
Population, 2010	360,485	5,988,927
Population, percent change, April 1, 2010 to July 1, 2011	1.3%	0.3%
Persons under 5 years, percent, 2011	6.5%	6.4%
Persons under 18 years, percent, 2011	25.2%	23.5%
Persons 65 years and over, percent, 2011	11.7%	14.2%
Female persons, percent, 2011	50.9%	51.0%
Ethnicity	St. Charles County	Missouri
White persons, percent, 2011 (a)	91.3%	84.0%
Black persons, percent, 2011 (a)	4.4%	11.7%
American Indian and Alaska Native persons, percent, 2011 (a)	0.3%	0.5%
Asian persons, percent, 2011 (a)	2.3%	1.7%
Native Hawaiian and Other Pacific Islander persons, percent, 2011 (a)	0.1%	0.1%
Persons reporting two or more races, percent, 2011	1.6%	1.9%
Persons of Hispanic or Latino Origin, percent, 2011 (b)	2.9%	3.7%
White persons not Hispanic, percent, 2011	88.8%	80.8%
Foreign born persons, percent, 2007-2011	3.5%	3.8%
Language other than English spoken at home, percentage 5+, 2007-2011	6.1%	6.1%

Source: US Census Bureau State & County QuickFacts

St. Charles County median household income of $71,458 ranks highest among the counties in Missouri. Missouri ranks 32nd in the United States with a $47,202 median household income.

Median Household Income (in 2011 Inflation-adjusted dollars) by State Ranked from Highest to Lowest using 3-Year Average: 2009-2011 (Source: U.S. Census Bureau, Current Population Survey, 2010, 2011, and 2012 Annual Social and Economic Supplements).

Socioeconomic Indicators



*Household Income <$15,000

Source: Thomson

New home permits numbered 1,497 in 2012; up from 1,111 in 2011. There was a 34% decline in permits from 2010 to 2011 (Home Builders Association of St. Louis and Eastern Missouri).

Housing	St. Charles County	Missouri
Housing units, 2011	142,766	2,723,415
Living in same house 1 year & over, percent, 2007-2011	89.0%	83.5%
Housing units in multi-unit structures, percent, 2007-2011	15.2%	19.6%
Median value of owner-occupied housing units, 2007-2011	$196,100	$138,900
Households, 2007-2011	132,908	2,354,104
Persons per household, 2007-2011	2.64	2.46

Source: US Census Bureau State & County QuickFacts

Children in single parent families are 18.8% in St. Charles County compared to 32.2% in Missouri (Source: Missouri Kids Count (http://oseda.missouri.edu/kidscount/).

Marriage/Divorce Rates	St. Charles County	Missouri
Marriages (per 1000)	4.4	6.5
Divorces (per 1000)	3.6	3.7
Divorces as a percent of marriages	79.1%	57.7%

Source: http://health..mo.gov/data/vitalstatistics/mvs09/Table 35A.pdf

St. Charles County ranks very high in education at a high school or post high school level.

Education	St. Charles County	Missouri
High school graduate or higher, percent of persons age 25+, 2007-2011	92.8%	86.8%
Bachelor's degree or higher, percent of persons age 25+, 2007-2011	34.5%	25.4%

Source: US Census Bureau State & County QuickFacts

Nearly 10,000 companies and groups do business in the county. Fifty percent of those who live in the county work in the county.

Employment December 2012	St. Charles County	Missouri
Total Labor Force	197,147	2,984,943
Total Unemployment	10,544	193,324
Unemployment Rate	5.3%	6.5%

Source: Missouri Dept. of Economic Development/MERIC in cooperation with the U.S. Dept. of Labor Bureau of Labor Statistics

Economic Indicators	St. Charles County	Status	MO	U.S.
Social & Economic Factors Ranking (Of 115 Mo Counties)	1	●	-	-
Students Eligible for Free Lunch Program *('09)*	14.1%	●	-	39.9%*
Children Living Below Poverty Level *('10)*	6.4%	●	-	20.4%*
Renters Spending >30% of Income on Rent *('10)*	44.1%	●	-	46.0%*
Unemployment *('12)*	6.4%	●	7.6%	8.60%
Households With Public Assistance *('10)*	1.3%	●	2.0%*	-
Homeownership *('10)*	78.1%	●	61.5%*	-

● Worse than MO/U.S. ● Similar to MO/U.S. ● Better than MO/U.S.

Poverty Rates, Food Uncertainty, SNAP/Food Stamps

	St. Charles County	Missouri
Poverty Rates		
Population Below Poverty	**5.0%**	**13.5%**
<18 years	**6.6%**	**18.9%**
>64 years	**3.5%**	**12.3%**
Food Uncertainty		
% Households Food Uncertainty	**8.4%**	**15.8%**
% HH with Children Food Uncert.	**11.7%**	**23.4%**
% Food Uncert. With Hunger	**3.0%**	**7.2%**
SNAP/Food Stamps		
% Total Pop Income Eligible	**6.4%**	**18.2%**
% <18 Years Income Eligible	**7.8%**	**24.7%**
Free/Reduced School Program		
% Students Eligible	**16.6%**	**42.9%**

Source: Missouri Hunger Atlas (http://missourifamilies.org/mohungeratlas/counties/)

III. CONDUCTING THE NEEDS ASSESSMENT

A. WORK GROUP STRUCTURE

Barnes-Jewish St. Peters Hospital Community Benefit Team (CBT) Members

RN, BSN, MS, Community Relations Manager

Community Education, Sr. Coordinator

RN, Community Education, Sr. Coordinator

Community Education, Sr. Coordinator

BJC Community Needs Health Assessment Work Group

Manager, BJC Market Research

Director of Community Affairs, BJC Health care

Community Benefits Manager, BJC Health care

Senior Planning Associate, BJC Strategic Planning

Manager, Child Advocacy Outreach Program, St. Louis Children's Hospital

Director, Child Health Advocacy and Outreach, St. Louis Children's Hospital

Barnes-Jewish St. Peters Hospital conducted the CHNA in collaboration with Progress West Hospital. Progress West Hospital is also located in St. Charles County.

The hospitals conducted external focus groups in September/October 2012. In December 2012/January 2013, an internal workgroup with representatives from the hospitals reviewed the focus group results and provided input into the priority needs of St. Charles County.

The two lists were merged and then ranked by the CBT using the Hanlon and PEARL Methodology*. The CBT presented the prioritized needs to the Senior Leadership Team for validation and consensus in February 2013.

*Hanlon and PEARL Methodology Priority Ranking

- Component A = Size of the problem
- Component B = Seriousness of the problem
- Component C = Estimated effectiveness of the solution
- Component D = PEARL factors (propriety, economic feasibility, acceptability, resource availability, legality)

These components translate into two formulas that provide a numerical score that gives highest priority to those diseases/conditions with the highest scores.

The CBT presented the prioritized needs to the Patient Family Advisory Committees (PFAC) between February and May 2013. The PFACs are comprises of patients, family members and health care providers who meet regularly to ensure an excellent experience and outcome for the patient and family.

- Barnes-Jewish St. Peters Hospital PFAC
- Siteman Cancer Center at Barnes-Jewish St. Peters Hospital PFAC
- Progress West Hospital PFAC

B. PRIMARY DATA COLLECTION

EXTERNAL FOCUS GROUP

BACKGROUND

In the Patient Protection and Affordable Care Act (PPACA) passed in March 2010, non-profit hospitals were mandated to conduct a community-based health needs assessment every three years. As a part of that process, each hospital is required to solicit input from those who represent the broad interests of the community served by the hospital, as well as those who have special knowledge and expertise in the area of public health. Specifically, a representative from the local or state health department should be included.

RESEARCH OBJECTIVES

The main objective for this research is to solicit input from health experts and those who have a special interest in the populations served by Progress West Hospital (PWHC) and Barnes-Jewish St. Peters Hospital (BJSPH) in St. Charles County.

METHODOLOGY

Hospital representatives formulated a two-step process. An initial focus group was conducted in September 2012 to solicit feedback on the needs of the St. Charles county population. A second meeting was held in October 2012 to share the results of the first focus group as well as the findings from additional secondary data analyses.

The first focus group was held on the evening of September 27, 2012 at 5:30 pm at the Spencer Road Library in St. Charles, MO. It lasted 2 hours and was moderated by the Manager of Market Research for BJC Health care.

Fifteen individuals representing various St. Charles County organizations were in attendance at either one or both focus groups. (See Appendix A) These organizations were identified by the hospital as representing key stakeholders who would have specific insights into the health care needs of the area. Each individual was sent a worksheet to complete prior to the meeting, to identify their perceptions of the greatest health care needs in St. Charles County, their knowledge of available resources to address the needs and the greatest “gap” that exists between need and available resources. (See Appendices B, C and D)

On October 23, the same group of community leaders was invited back to the Spencer Road Library. At that meeting, the Senior Planning Associate for BJC Strategic Planning presented the health care needs that were identified in the earlier group, along with available secondary data that attempted to quantify the size of each need. At the end of the second meeting, community leaders were asked to re-evaluate the identified health care needs in terms of their priority for the community as well as the ability for the community to collaborate around them. Those results were compiled and are presented at the end of this report.

KEY FINDINGS: FOCUS GROUP #1 September 27, 2012

The transcript of the focus group was analyzed in conjunction with the completed worksheets that were returned by community stakeholders. The following needs were identified and are listed in order of those most frequently mentioned to least. Comments made during the focus group have also been included.

Access to Care for the Uninsured and Underinsured: (10 mentions)

- There is a lack of primary care options.
- The ER is used inappropriately for non-urgent issues due to a lack of "medical homes." It is also a convenience – patients don't want to wait to get in to see their doctor.
- There is a lack of public transportation options in St. Charles. Getting to health appointments is a challenge.
- There is a lack of health insurance for adults.
- Access to prescription medications is hampered by a lack of insurance or an inability to pay.
- Lack of insurance and the cost of care keep people from acting on medical issues early on; they wait until they become worse, and then they are more difficult and expensive to treat.

Mental Health Services: (6 mentions)

- There are certain populations that are especially affected by limited availability of services: children, seniors and families in crisis.
- This is also an issue for uninsured adults. There is no place for an uninsured psychiatric patient to go. They can go to the emergency room when they are in crisis, but other than that, there is nowhere for them to go. Even those with medical insurance may not have mental health benefits.
- Internal medicine doctors may not get paid by an insurance company if they submit a diagnosis of depression.
- Many of those who need mental health services end up in jail.
- There are also not enough inpatient psychiatric beds in St. Charles County, especially for those who do not have insurance. Patients who need inpatient care are often transferred out of the county.
- There is also a need for pediatric psych beds as well as outpatient services.

Dental Health Services for the Uninsured: (4 mentions)

- FQHCs only have limited services available.
- Even people with health insurance may not have dental insurance.
- People will wait until a dental problem becomes quite severe. There are limited places where they can go for help, including Volunteers in Medicine. They will also end up in the emergency department. They will be treated with antibiotics and pain medications.
- The cheapest treatment option is often to pull their tooth but that may affect physical appearance, self-esteem and future job prospects.

Drug/Alcohol Abuse: (3 mentions)

- There is an increased prevalence in use of heroin, designer drugs such as “spice,” “K-2” and bath salts.
- Abuse of prescription drugs is also a concern.
- The cost of inpatient rehab is very high and many of those who need it cannot afford it.

Care for Children: (3 mentions)

- There is a need for pediatric orthopedists.
- Better communication is required between medical providers and the schools. The school nurse requires a physician order to treat a student, but that is often difficult to get.
- Obesity among the youth is becoming a major concern. Kids don’t eat properly and are not exercising regularly.
- Food allergies are increasingly becoming a concern along with asthma and seizures.
- Schools are also seeing more students who have been diagnosed with bipolar disorder.

Health Literacy: (3 mentions)

- Patients need to be able to read and understand health information, find health information on their own and understand their doctor’s advice.
- Consumers need to be able to make good decisions based on the limited resources they have and the limited resources available.

Seniors: (3 mentions)

- Mental health issues are an area of concern among the elderly.
- They also face issues of health literacy, especially if they are on a lot of medication and have no one to help them sort it all out.

- Transportation is also an issue as they will become socially isolated when no longer able to drive, or else they will have to move to an elder-care community.
- There are a lot of elder-care communities in St. Charles County that offer a range of service options.
- Hospice care is also an area that many people do not understand and don't think about until the need arises. There is also no inpatient hospice in St. Charles.
- We need to determine how best to get information to their caregivers about what services are available, especially respite care.

Obesity: (2 mentions)

- It is an issue in both the adult and pediatric populations.
- Kids don't eat properly and are not exercising regularly. Some kids are not familiar with fresh fruit and vegetables and don't know how to eat them.
- Parents need to be educated as to what is appropriate and healthy for their children.
- Healthy food is more expensive than processed food and that creates an obstacle for families.
- We don't make it easy for people to walk or bike places.
- The tendency is to opt for convenience foods that may not be as healthy as home-cooked.
- Obesity leads to chronic conditions like heart disease and diabetes. We are seeing them at younger and younger ages.
- The insurance incentives will pay for services when you are sick, but do not encourage preventive behaviors. The incentives are not aligned with the behaviors we want to encourage.

Smoking: (2 mentions)

- St. Charles County needs to be smoke-free.

The following topics were mentioned once on the worksheets, but were also discussed during the course of the focus group:

Walkable/Bikeable Communities: This contributes to the high level of concern about obesity.

Comprehensive Wound Care in a Single Location: Especially for diabetics and those who have wounds that take a long time to heal. There is a need for a multidisciplinary approach that would involve surgeons, internists, pharmacists and nurses. If wounds are not treated correctly, patients will end up in the hospital and require an amputation.

Worksite Wellness Options: These need to include healthy vending and food options as well as promotion of physical activities.

Coordination of Care and Communication of Information between Health Providers: There is an inability for different EMRs to communicate with each other, which limits the physician's ability to make knowledgeable decisions on behalf of his patient.

The following topics were mentioned during the focus group, but not on the work sheets:

Chronic Conditions, including cancer, diabetes and heart disease, were mentioned during the focus group, but not specifically mentioned on the work sheet. Several points were mentioned during the discussion, including:

- There appear to be a high number of cancer cases in St. Charles County.
- If there was more of a focus on prevention and screening, the incidence of these diseases might decline.
- Heart disease is the number one cause of mortality in St. Charles County.

The Hispanic Population was identified as a growing segment of those living in St. Charles County, primarily in St. Charles city.

- Many of them do not have insurance.
- There is also a language barrier that may keep them from getting the care they need. Children often act as interpreters for their parents, but they will not understand medical terminology.
- Those who are illegal immigrants without the proper documentation will never work for an employer who offers insurance.
- Their custom of using the mother's last name may also create challenges in tracking their medical information and whether or not the children have had the required immunizations.

WHAT ROLE SHOULD HOSPITALS PLAY IN ADDRESSING THE NEEDS OF THE COMMUNITY?

Many community stakeholders feel that the hospitals should offer educational programs where residents can learn about a condition that affects either themselves or a family member.

They should also work with seniors and their caregivers to address the issues of Health Literacy. Finding ways to improve the communication between doctor and patient was suggested, such as helping patients to understand medical terminology and "jargon" and what it all means.

Another area of educational opportunity includes informing patients of how they can treat or prevent disease without taking medications. What are some of the other options they can consider?

Another area where hospitals should focus is in identifying ways that different (Electronic Medical Records (EMRs) can communicate with each other. Or, creating a repository of patient information that medical providers can access so they can see all of the different points in the health care system where their patient has received care.

Hospitals should also identify patients who are repeat ER users and try to find other ways to collaborate with community partners, such as the Crider Center, to get them a regular source of care.

There is also a need to offer community-based support and informational groups related to nutrition services, coping with grief, and for caregivers of seniors and the "Sandwich Generation."

From the second focus group, community stakeholders offered additional comments.

Make sure that community residents are aware of all of the support and educational services that the hospitals offer.

- Enhancing the communication between the hospitals and the library to ensure that everyone knows what programs are available.
- Finding additional ways to partner with other community agencies to ensure that there is open communication about what each of them is doing. This would include the schools, which all have websites, and making sure they know about programs that are targeted to parents and children.
- Enhancing relationships with Human Resource offices in St. Charles County corporations to further disseminate health and wellness information to employees.

Hospitals can focus on the health care of immigrants, preventive health messaging and education. They should consider collaborating with other health and community service providers to tackle a particular issue.

In the schools, the education of the parents is important when it comes to obesity. The parents need to be educated so they can model healthy behaviors for their children. They need to play an active role in the process and not depend on the schools to do it alone.

Collaboration is important between St. Charles County and North County hospitals because of the migration of families from North County to St. Charles. Even though Mercy does not have a hospital in St. Charles County, they and SSM HealthCare should be included as part of any collaborative efforts.

Health Literacy is an area of collaboration that could have a strong impact on the community.

Churches are also an important partner with which to collaborate. Many people identify with a church community and may look at a church as a way to access information and services.

It is also important for hospitals to take their messages and programs into the community where the people are, and not expect them always to come to the hospital grounds.

KEY FINDINGS OF FOCUS GROUP: FOCUS GROUP #2: October 23, 2012

After viewing the secondary data on the previously identified community health needs, key stakeholders were asked to evaluate each of them based on two attributes: level of community concern and potential to collaborate around the health issue. Each was rated on a scale of 1 (low) to 5 (high).

An average score was calculated for each health care need. No issues had an average score less than 3.0.

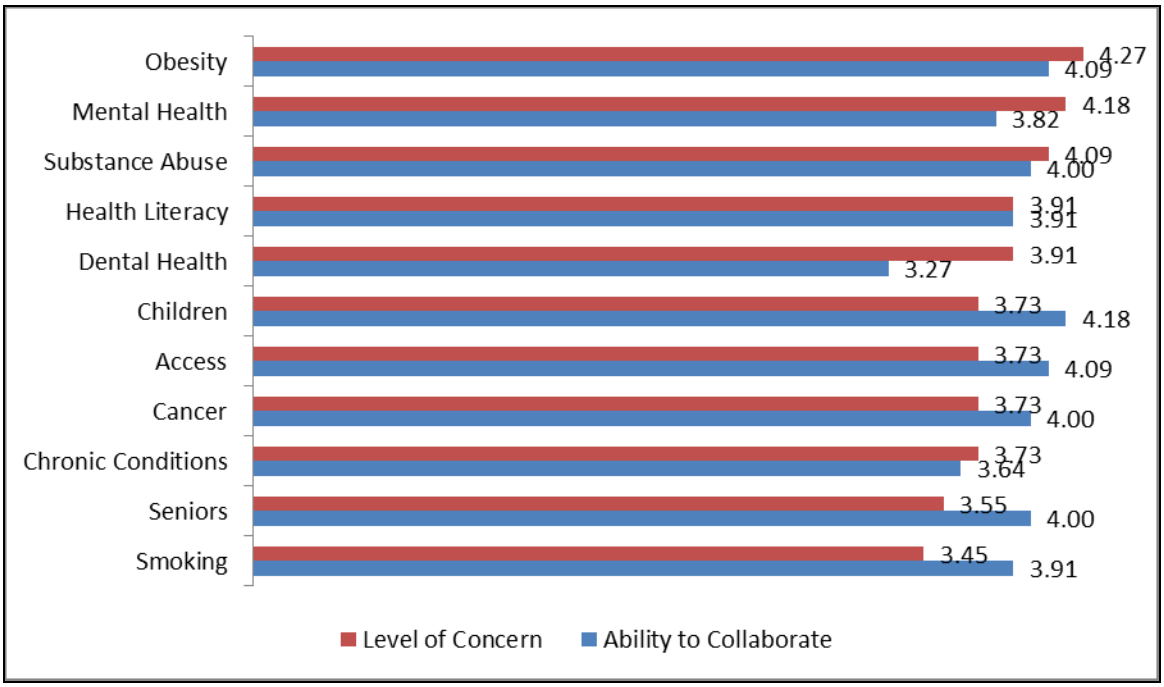
Obesity was rated the highest in terms of level of community concern with an average score of 4.27. It was also rated high in terms of ability to collaborate, with an average score of 4.09. However, the needs of Children were rated highest in terms of ability to collaborate, with an average score of 4.18.

Mental Health and Substance Abuse also scored high relative to community concern (average score >= 4.0) but their ability to collaborate was rated lower.

Access, Cancer and seniors were identified as areas where there is opportunity to collaborate (average score >= 4.0) but scored lower relative to level of concern.

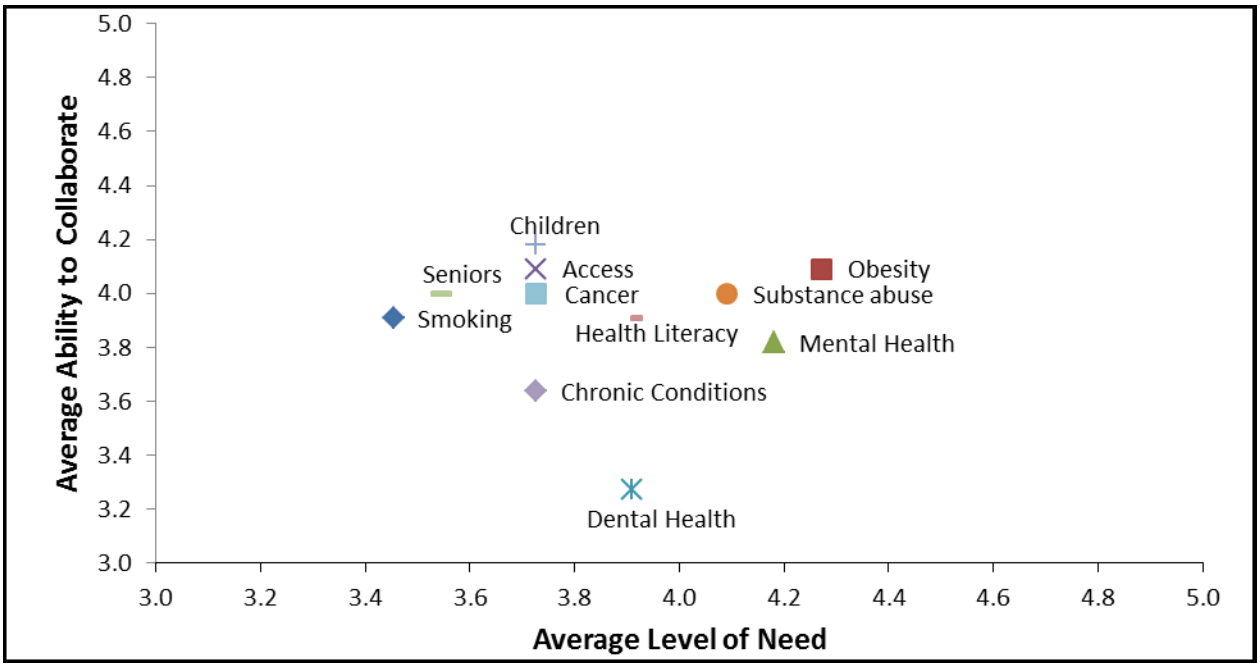
Health Literacy, Dental Health, Chronic Conditions and Smoking were rated lower on both attributes of community concern and ability to collaborate (average score <= 4).

Level of Concern and Ability to Collaborate



Key stakeholders ranked *Ability to Collaborate* and *Level of Need*. A five indicates the greatest ability to collaborate and the greatest level of need.

Plot of Average Ability to Collaborate by Level of Community Concern



The following table illustrates the *Potential to Unify* (ability to collaborate) and *Level of Community Concern* (need) as high or lower.

Potential to Unify	Health Topic Ranking: Lower	Health Topic Ranking: High
High	Children Seniors Access Cancer	**Substance Abuse** **Obesity**
Lower	Smoking Health Literacy Chronic Conditions Dental Health	Mental Health

Level of Community Concern: Lower — High

INTERNAL WORKGROUP

BACKGROUND

The Community Benefit Team (CBT) formed an internal hospital workgroup composed of experts in various specialties. The group met twice: December 2012 and January 2013. Their task was to formulate a list of community needs based on their subject expertise and then rank order the needs.

PARTICIPANTS

Emergency Department Regional Medical Director
Radiation Oncologist, Siteman Cancer Center at Barnes-Jewish St. Peters Hospital
Manager, Siteman Cancer Center at Barnes-Jewish St. Peters Hospital
Staff Nurse, BJC Home Health Services
Certified Diabetes Educator
Dietitian
Pediatric Medical Director—Progress West Hospital Emergency Department
Manager, Case Coordination
Social Worker
Manager, Patient Access
Community Education Senior Coordinator
Community Education Senior Coordinator
RN, Community Education Senior Coordinator
Hospitalist—Barnes-Jewish St. Peters Hospital
Senior Planning Associate, BJC Strategic Planning
Manager, Pharmacy
Manager, Cardiology Services

Facilitator: Manager, Community Relations

OBJECTIVES SESSION 1

- Gain understanding of our hospitals' process to meet the IRS requirements
- Review the External Focus Group results (Sept/Oct 2012)
- Analyze and review other data
- Understand next steps and role as an Internal Team Member

OBJECTIVES SESSION 2

- Participants will share their list of priority needs in St. Charles County
- The group will rank the priority needs using the specified criteria:
  - Level of community concern
  - Ability to collaborate (ability to unify)*

*Does this issue have the potential to unify individuals, groups and organizations to act together? To provide a service: funding partnerships; convening task forces with action-oriented agendas; advocating for changes in public policy, etc.

METHODOLOGY

The CBT used a similar process for the internal workgroup as that used for the external focus group.

The first session was held December 17, 2012. The facilitator presented the CHNA requirements, external focus group results and secondary data resources.

Focus Group Feedback

- Based on feedback from the focus group worksheets, the most frequently mentioned needs in St. Charles County include the following:

Health Issue	# of Mentions
Access	9
Mental Health	6
Healthy Lifestyles	6
Dental Health	4
Substance Abuse	3
Pediatrics	3
Health Literacy	3
Seniors	3
Chronic Conditions	1
Cancer	1

- The growing Hispanic population was also mentioned. All of the above health issues may be exacerbated in this population due to cultural and communication challenges.

Participants were asked to evaluate their individual perception of the health care needs in St. Charles County with the idea of sharing these needs with the larger group at the next session.

The internal workgroup met again on January 7, 2013. Each participant shared their list of community needs. The CBT organized the needs by categories and then asked the participants to vote (N/3 voting, N=categories) using the following criteria:

Need: Level of community concern
Ability to collaborate: Ability to unify

Community Needs Based on Internal Workgroup Priority:

1. Access
2. Mental Health
3. Obesity
4. Smoking/Tobacco
5. Cancer
6. Medications
7. Dental Health
8. Lifestyle/Nutrition/Sedentary
9. Diabetes
10. Substance Abuse
11. Health Literacy
12. Seniors
13. Children

In summary, the internal workgroup was thanked for their input and informed that their list of community needs would be considered alongside the external focus group results. The CBT will also take into consideration when considering the needs the following:

- Where can the hospital have the greatest impact?
- How do these priorities align with the hospital's mission and resources?
- What are we already doing successfully?
- Are other providers already addressing some of these needs?
- Do we have an internal champion?
- What do senior leaders consider as the priorities?

OTHER STAKEHOLDER DISCUSSIONS/PRESENTATIONS

BACKGROUND

The CBT presented findings from the External Focus Groups and the Internal Workgroup sessions to the following groups between February and July 2013. The purpose was to gather input and gain consensus.

GROUP PRESENTATIONS

- Patient Family Advisory Councils:
  - Barnes-Jewish St. Peters Hospital
  - The Siteman Cancer Center at Barnes-Jewish St. Peters Hospital
- Progress West Hospital
- St. Charles City – County Library District Partnership Meeting
- Senior Leadership Team for Barnes-Jewish St. Peters Hospital and Progress West Hospital

C. SECONDARY DATA

The Community Benefit Team (CBT), a subset of the internal workgroup, reviewed secondary data to either validate or dispute the external focus group findings. Secondary data is data that already exists and is readily available from other sources.

SOURCES OF SECONDARY DATA:

- **Missouri Information for Community Assessment (MICA)** is an interactive system that allows the user to create and download tables, based on selected variables from several data files. The MICA web site for MO hospitals is http://health.mo.gov/data/mica/MICA/

- **Healthy Communities Institute:** an online dashboard of health indicators for St. Charles County that has the ability to evaluate and track information against state and national data and Healthy People 2020 goals. Sources of data include the National Cancer Institute, Environmental Protection Agency, US Census Bureau, US Department of Education, and other national, state, and regional sources.

- **Healthy People 2020:** An initiative of the US DHHS, Healthy People provides science-based, 10-year national objectives for improving the health of all Americans. These goals encourage collaborations across communities and sectors, empower individuals to make informed health decisions, and measure the impact of prevention activities. Goals are based on the 2010 data, with the 2020 goal to decrease them below that level.

This section provides secondary data on the following community health needs:

- Access to Care for the Uninsured and Underinsured
- Mental Health
- Healthy Lifestyle
- Dental Health
- Substance Abuse
- Pediatric Health and Safety
- Health Literacy
- Seniors
- Chronic Conditions
- Cancer

ACCESS TO CARE FOR THE UNINSURED AND UNDERINSURED

Primary Care

- Many lack access to preventive and routine care.
- Patients don't act on care needs due to a lack of insurance, financial burden or transportation.
- Hospitals see overuse of emergency departments due to lack of primary care access.

Access	St. Charles County	Status	MO	U.S.	HP 2020
Clinical Care Ranking (of 115 Mo Counties) *('12)*	4	●	-	-	-
Adults With Health Insurance (18-64 with any coverage) *('10)*	89.3%	●	-	80.4%*	100%
Children With Health Insurance *('10)*	97.1%	●	-	93.8%*	100%

*Indicates the lower limit of the 50th percentile.

● Worse than U.S. ● Similar to U.S. ● Better than U.S.

- A higher proportion of Medicaid and self pay patients are seen in the emergency rooms at BJSPH and PWHC than for inpatient and outpatient services.

Charity Care* (2010)
- BJSPH: $3,712,764
- PWHC: $816,306

***Charity Care:** A very specific financial assistance policy that includes free or discounted health services to person's who meet the hospitals' criteria based upon income, assets and family size. It does not include bad debt or uncollectable charges or the difference between the cost of care and the revenue received from Medicare or Medicaid.

Sources: Healthy Communities Institute; Barnes-Jewish St. Peters Hospital; Progress West Hospital

Preventable Hospitalizations

- According to the Missouri Department of Health and Human Services, preventable hospitalizations are defined as 'diagnoses for which timely and effective outpatient care can help reduce the risks of hospitalization by either preventing the onset of an illness or condition, controlling an acute episodic illness or condition, or managing a chronic disease or condition'.
  - A defined list of diagnoses and procedures was used to identify 'preventable' hospitalizations.

Preventable Hospitalizations (<65, per 100,000 pop)	St. Charles County	Status	MO
Asthma *('09)*	7.5	●	13.1
COPD *('09)*	4.5	●	11.7
Diabetes *('09)*	6.5	●	11.2
Hypertension *('09)*	0.9	●	2.6
Kidney/Urinary Infection *('09)*	6.2	●	8.0
Gastroenteritis *('09)*	3.3	●	4.0
Bacterial Pneumonia *('09)*	13.7	●	19.6

● Worse than MO ● Similar to MO ● Better than MO

Source: Healthy Communities Institute

Physician Availability

Supply/Demand:

When assessing St. Charles County using demand modeling and current physician locations, data indicates that there is a need for primary care physicians and various subspecialists.

However, many physicians are not at capacity, so this may highlight the factors that contribute to the lack of access to primary care.

The following specialties have the highest need in St. Charles County:

- Psychiatry
- Pediatrics
- General Surgery
- Orthopedics
- Cardiac/Thoracic Surgery
- Plastic Surgery

Community Resources:

Crider Health Center, a Federally Qualified Health Center, has experienced significant growth over the last year and served over 12,000 patients in 2011 through their three largest programs:

- Primary Care: 6,188
- Psychiatry: 4,323
- Dental: 1,971

Volunteers in Medicine (St. Charles City site) is a free clinic that serves uninsured low income adults. The clinic operates 12-14 hours per week and provides about 5,000 patient visits annually. The organization has experienced substantial growth over the last few years and celebrated the grand opening of a new, larger office on October 27, 2012.

Source: Crider Health Center, Volunteers in Medicine, BJC Strategic Planning Data

Transportation

Transportation to medical appointments is available through nine different organizations, most of which provide the service free of charge but require 24-48 hours of notice.

A local organization (Mobility Management group) is working to create a 'One Call/One Click Mobility Management Center or Agency' to unify the transportation resources in the community.

Transportation	St. Charles County	Status	MO	U.S.
Households Without a Vehicle *('10)*	3.2%	●	-	5.7%*
Workers Commuting by Public Transportation (% Age 16+) *('10)*	0.2%	●	-	0.3%*
Mean Travel Time to Work (Age 16+, minutes) *('10)*	25.0	●	-	22.4*

*Indicates the lower limit of the 50th percentile.

● Worse than U.S. ● Similar to U.S. ● Better than U.S.

Source: Healthy Communities Institute, St. Charles County Transportation website

MENTAL HEALTH

- Psychiatry is a high-need area, especially for the uninsured and underinsured.
- Primary care physicians aren't reimbursed for mental health.
- Shortage of inpatient beds in the county leads to transfers to acute facilities elsewhere.
- Missouri's mental health system provides services to only 25% of adults who live with serious mental illnesses.
- In 2011, an estimated 13.2% of St. Charles County adults struggled with serious and persistent mental illness.

Mental Health	St. Charles County	Status	MO	U.S.	HP 2020
Poor Mental Health Days (in last 30) *('10)*	3.3	🟡	-	3.4*	-
Inadequate Social Support (adults) *('10)*	13.0%	🟢	-	19.1%*	-
Death Rate Suicide (per 100,000 pop) *('09)*	11.3	🟡	14.5*	-	10.2
ER Visits for Anxiety & Personality Disorders (per 1,000 pop) *('09)*	1.9	🟢	2.8	-	-
ER Visits for All Mental Disorders (per 1,000 pop) *('09)*	7.6	🟢	11.0	-	-
ER Visits for All Mental Disorders (per 1,000 pop, <15) *('09)*	3.0	🔴	2.7		
ER Visits for All Mental Disorders (per 1,000 pop, 65+) *('09)*	4.6	🟢	5.6	-	-

*Indicates the lower limit of the 50th percentile.

🔴 Worse than MO/U.S. 🟡 Similar to MO/U.S. 🟢 Better than MO/U.S.

- Mental disorders include mental retardation, alcohol and substance related mental disorders, senility, affective disorders, schizophrenia, other psychoses, anxiety and personality disorders, history of mental disorders, and other mental conditions.

Source: Healthy Communities Institute, NAMI, Crider Health Center

HEALTHY LIFESTYLE

- Obesity is a problem due to diet and lack of physical activity.
- Cost of food is an issue for many people.
- Dietary changes in schools have been beneficial, but are a work in progress.

Overall Health Status	St. Charles County	Status	MO	U.S.	HP 2020
General Health Assessment: Fair or Poor *('10)*	9.8%	🟢	-	16.0%*	-
Poor Physical Health Days (in past 30 days) *('10)*	2.9	🟢	-	3.7*	-
Health Behaviors Ranking (Of 115 Mo Counties) *('12)*	5	🟢	-	-	-
Physical Environment Ranking (Of 115 Mo Counties) *('12)*	89	🟡	-	-	-
Premature Death (# Years lost) (per 100,000 pop) *('08)*	5,171	🟢	-	8,065*	-
Death Rate Unintentional Injuries (per 100,000 pop) *('09)*	41.9	🟡	54.8*	-	36.0

*Indicates the lower limit of the 50th percentile.

🔴 Worse than MO/U.S. 🟡 Similar to MO/U.S. 🟢 Better than MO/U.S.

- Health behaviors ranking is based on a variety of health measures related to smoking, risky sexual behaviors and unhealthy diet.
- Physical environment ranking is based on a variety of measures that include the areas where we live and work (ex: homes, buildings, streets and parks). The lower ranking may be due to high levels of ozone. Since the only ozone sensor in St. Charles County is located in West Alton, the reading may not be indicative of the overall county levels.

Source: Healthy Communities Institute

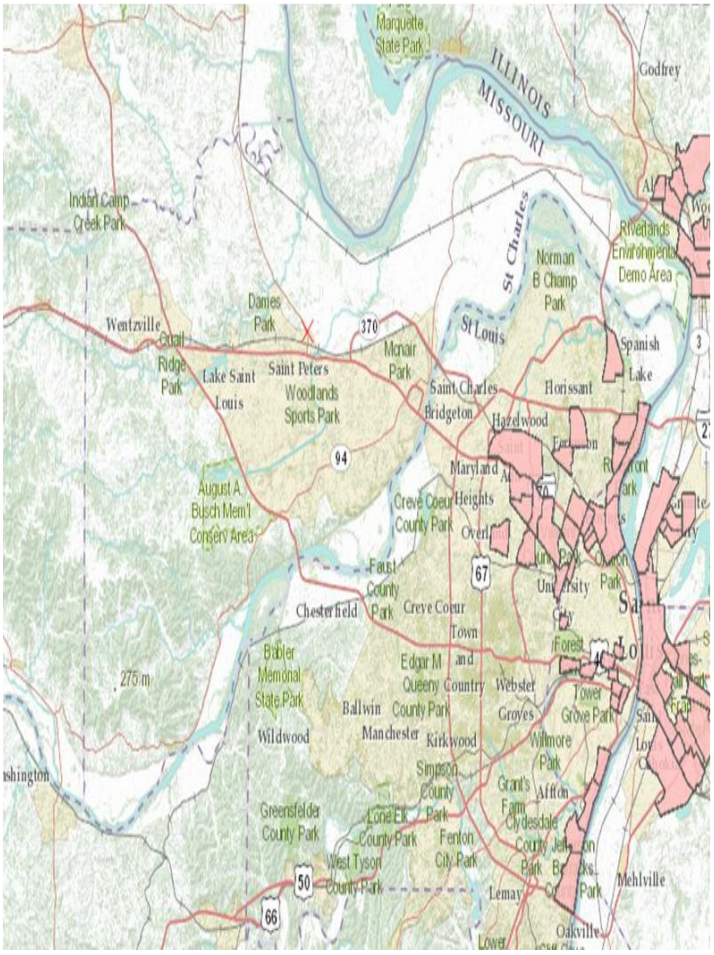
Smoking and Obesity	St. Charles County	Status	MO	U.S.	HP 2020
Adults who Smoke *('10)*	17.4%	🟡	25.0%	18.4%	12.0%
Adults who are Overweight *('07)*	33.9%	🟡	36.0%*	-	-
Adults who are Obese *('07)*	29.3%	🟡	29.5%*	-	-
Low Income Preschool Obesity *('10)*	13.8%	🟡	-	14.0%*	-
Recreation and Fitness Facilities (per 1,000 pop) *('09)*	0.12	🟢	-	0.07*	-
Sedentary Adults *('09)*	24.1%	🟢	30.6%*	-	-
Grocery Store Density (per 1,000 pop) *('09)*	0.11	🔴	-	0.21*	-
Fast Food Restaurant Density (per 1,000 pop) *('09)*	0.7	🔴	-	0.57*	-
Adult Fruit & Vegetable Consumption *('07)*	23.9%	🟢	21.2%*	-	-

*Indicates the lower limit of the 50th percentile.

🔴 Worse than MO/U.S. 🟡 Similar to MO/U.S. 🟢 Better than MO/U.S.

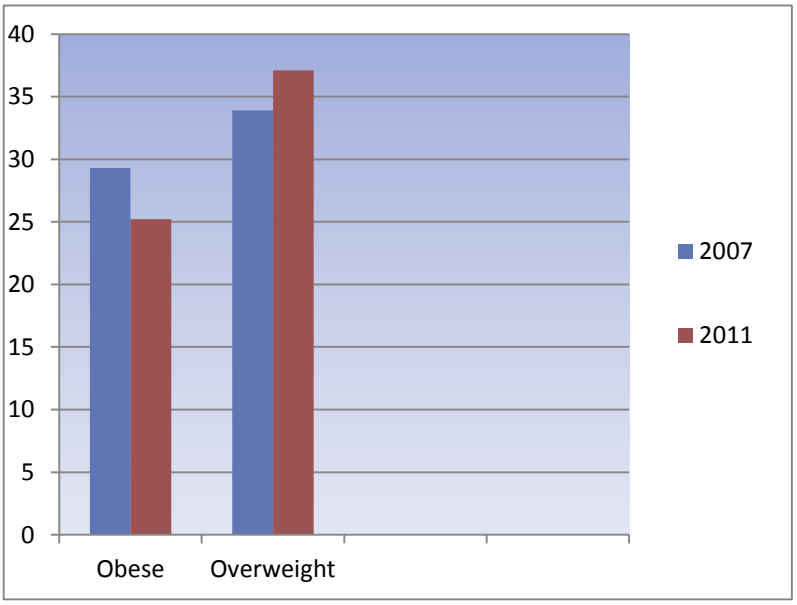
Source: Healthy Communities Institute, CDC

- A food desert is defined as a low-income census tract where a substantial number or share of residents has low access to a supermarket or large grocery store.
  - St. Charles County does not have any food deserts.



Source: USDA Food Desert Locator

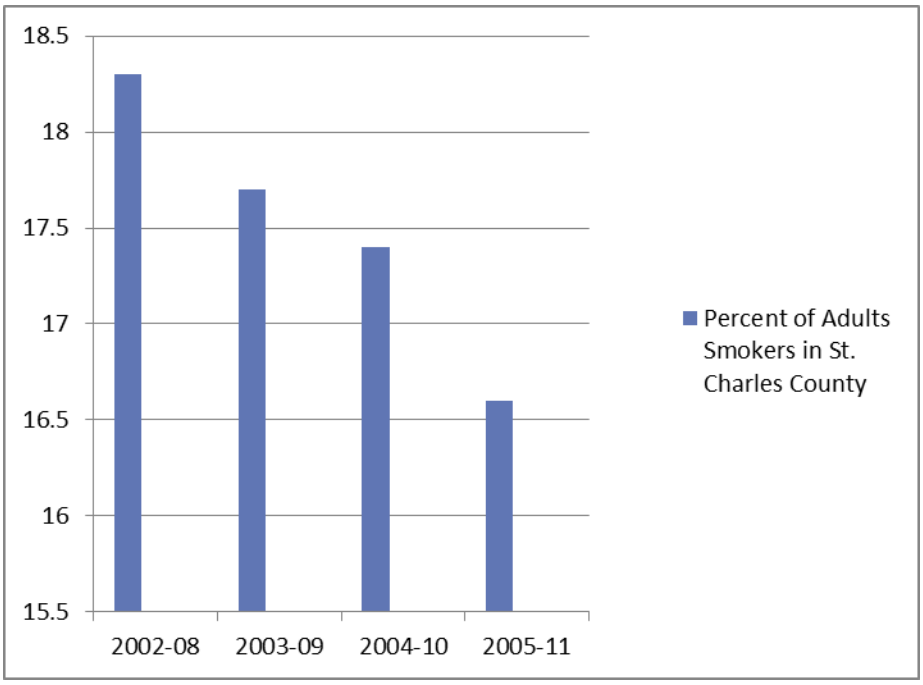
St. Charles County Adults: Percent of Obesity and Overweight



- Obese is defined as having a Body Mass Index (BMI) of 30 or greater.
- Overweight is defined as having a BMI of 25 – 29.9.

*The 2011 data should be considered a baseline year for data analysis and is not directly comparable to previous years of data because of changes in the weighting methodology and the addition of a cell phone sampling frame (source: Healthy Communities Institute).

St. Charles County Adults: Percent of Smokers



(source: Healthy Communities Institute).

Tobacco use brings premature death to almost half a million Americans each year, and it contributes to profound disability and pain in many others. Approximately one-third of all tobacco users in this country will die prematurely because of their dependence on tobacco. Areas with a high smoking prevalence will also have greater exposure to secondhand smoke for non-smokers, which can cause or exacerbate a wide range of adverse health effects, including cancer, respiratory infections, and asthma (source: HCI)

Tobacco use is the single most preventable cause of death in the United States (source: CDC). Smoking leads to premature death and contributes to health care costs. Tobacco use treatment is one of the most cost-effective clinical preventive services.

Currently, 16.6 percent of the adults in St. Charles County smoke cigarettes. While this number is trending downward from 18.3 percent during 2002-2008 (time series data), the percent of smokers still exceeds *The Healthy People 2020* national health target for adults, aged 18 years and older who smoke cigarettes, to reach 12 percent (source: HCI).

A 40-year decline in smoking leveled off about five years ago according to the Campaign for Tobacco-Free Kids.

In the U.S., secondhand smoke is responsible for an estimated 35,000 deaths per year from heart disease and lung cancer in nonsmokers (U.S. Environmental Protection Agency, 1992). Secondhand smoke also causes stroke, emphysema, bronchitis, asthma, respiratory infections,

Sudden Infant Death Syndrome and other illnesses (Surgeon General, U.S. Department of health and Human Services).

St. Charles County does not have a county-wide smoking ban. Municipalities in the county are reviewing smoking policies on their own. To date, O'Fallon is the only municipality that has successfully passed a smoking ban. In a recent attempt, St. Charles city officials were presented with air quality reports for smoking and nonsmoking establishments. The study was conducted by MU School of Medicine – University of Missouri Health System. (See Appendix F)

DENTAL HEALTH

- Access to dental care can be challenging to uninsured patients due to financial circumstances.
- Patients often wait until problems get so bad that they end up in the emergency department.

The Centers for Disease Control ranked Missouri 47th in terms of the percentage of the population that visited a dentist last year, and 50 of Missouri's 115 counties have a shortage of dental professionals.

BJSPH was on track to treat 452 patients in the emergency department for dental pain this year (2012).

Head Start children are taken to the dentist as part of the program. For many of the children and their siblings, it is the first time they have ever seen a dentist. Many of the children have multiple or severe dental caries that require sedation for treatment.

Dental Health (all ages, per 100,000 pop)	St. Charles County	Status	MO
ER Visits for Disorders of Teeth and Jaw *('09)*	4.3	●	10.0
Preventable Hospitalizations for Dental Conditions *('09)*	0.9	●	1.1
Number of Registered Dentists *('08)*	38	●	44

● Worse than MO/U.S. ● Similar to MO/U.S. ● Better than MO/U.S.

Source: Healthy Communities Institute, MO Department of Health & Senior Services

SUBSTANCE ABUSE

Abuse is an issue for substances such as heroin, spice and bath salts.

A 2012 joint effort between St. Charles County Sheriff's deputies and federal drug agents uncovered one of the biggest distributors of synthetic drugs in the Midwest. One of the storage areas was in St. Charles County and had more than $1.5 million of illegal products such as K2 and spice.

In 2011, 4.5% of total Missouri meth lab incidents occurred in St. Charles County. According to the St. Charles County Department of Public Health, this number may decrease in the future due to the availability of a recently approved pseudoephedrine substitute that cannot be chemically altered and made into meth.

Substance Abuse	St. Charles County	Status	MO	U.S.
ER Visits for Alcohol & Substance-Related Mental Disorders (per 1,000 pop, all ages) *('09)*	1.9	🟢	3.2	-
ER Visits for Alcohol & Substance-Related Mental Disorders (per 1,000 pop, 15-24) *('09)*	4.2	🟡	4.2	-
Liquor Store Density (per 100,000 pop) *('10)*	4.4	🟢	-	10.4*
Adults Who Drink Excessively (in past 30 days) *('10)*	23.6%	🔴	-	14.5%*
Alcohol (grades 6-12, 30 day use) *('10)*	21.7%	🔴	19.8%	-
Marijuana (grades 6-12, 30 day use) *('10)*	9.0%	🟡	9.4%	-
Prescription Abuse (grades 6-12, 30 day use) *('10)*	6.4%	🟡	6.7%	-
Over the Counter Drug Abuse (grades 6-12, 30 day use) *('10)*	5.0%	🔴	4.8%	-

*Indicates the lower limit of the 50th percentile.

🔴 Worse than MO/U.S. 🟡 Similar to MO/U.S. 🟢 Better than MO/U.S.

- The data for alcohol and drug use for grades 6-12 is likely under-reported since it is a self-reported metric and many would not self-report this behavior.

Source: Healthy Communities Institute, StL Today, MO Department of Mental Health

PEDIATRICS HEALTH AND SAFETY

Children are at risk if they do not receive proper care.

- So far this year, 3,478 children have been served at the three Crisis Nurseries in St. Charles County (2012).
- Between January and October 2012, more than 1,761 families had been provided crisis counseling, referrals and support services through the Crisis Nurseries in St. Charles County.
- For the same timeframe, 462 parents had been counseled through the 24-hour helpline without having to admit their child to one of the nurseries.

The need for respite care is increasing due to risk factors such as high divorce rate and increasing numbers of low income children.

The rise in pertussis cases may be due to adults who transmit the virus to others because their vaccination is no longer effective. This number rises and falls over time.

Medicare will not pay to have patients re-vaccinated.

In some children, the vaccine has lost its effectiveness but they won't be re-vaccinated for a few more years.

Low income preschool obesity is at 13.8% (2010) compared to 14% in the U.S.

Pediatrics	St. Charles County	Status	MO	U.S.
Diabetes Inpatient Hospitalization (<15, per 100,000 pop) *('09)*	59.9	🟢	114.0	-
Asthma Inpatient Hospitalization (<15, per 100,000 pop) *('09)*	34.4	🟡	36.0	-
Total Inpatient Utilization (<15, per 100,000 pop) *('09)*	293.7	🟢	355.1	-
Child Abuse Rate (<18, per 1,000 pop) *('09)*	2.9	🟢	4.4	-
New Cases of Pertussis (all ages, per 100,000 pop) *('12)*	11.5	🔴	8.0	4.0

🔴 Worse than MO 🟡 Similar to MO 🟢 Better than MO

Source: Healthy Communities Institute, Crisis Nursery St. Charles County

Parents do not readily associate obesity in their child with long-term chronic health conditions.

Source: Children's Mercy Hospital, Kansas City

HEALTH LITERACY

The ability to understand health information, ask appropriate questions, access health services when needed, and take medication correctly are all required to be an educated health consumer, and are part of what is referred to as "health literacy."

Being "health literate," or having someone act as an advocate on your behalf, is a necessary requirement in today's complex health system for a person to receive timely and effective health care services.

Health literacy is defined as the degree to which individuals have the capacity to obtain, communicate, process and understand the basic health information and services needed to make appropriate health decisions.

Patients must:

- Read and evaluate complex health information
- Weigh the risks and benefits of medical procedures
- Comprehend the doctor's advice
- Use math to calculate medicine dosage
- Interpret test results
- Find health information on their own

Why is this important? People with low health literacy are:

- More likely to be hospitalized
- More likely to use emergency rooms
- More likely to have medication and treatment errors
- Less likely to follow through with their treatment plans
- Less likely to obtain preventative care

Costs due to low health literacy:

- Low health literacy costs the U.S. economy between $106 billion and $236 billion annually.
- For Missouri, the number ranges from $3.3 billion to $7.5 billion annually.

Adults with low health literacy tend to:

- Have poor health status
- Use emergency rooms and inpatient care more frequently
- Have a higher risk of death

Low health literacy is not associated with gender or measurement instrument but is associated with level of education, ethnicity and age.

Some obstacles to a high level of health literacy:

- Language – inability to read or write English
- Sensory impairment – hearing or visual limitations
- Vocabulary – lack of familiarity with medical terminology
- Inability to comprehend the meaning of test results or follow-up instructions

Low health literacy can also contribute to hospital readmissions.

READMISSIONS FOR ANY REASON WITHIN 30 DAYS (2011)

	ALL PAYORS	***MEDICARE***
BJSPH	**10%**	**12%**
PWHC	**8%**	**11%**

Source: The Prevalence of Limited Health Literacy: Paasche-Orlow, BJC Strategic Planning Data

SENIORS

- Lack of medication compliance can complicate health issues
- Lack of transportation is a problem when seniors can no longer drive themselves.
- Falls are a major health concern for seniors. In 2010, falls accounted for 575 deaths in Missouri for people 65 and older.
- In Missouri, the cost of falls is expected to be $47 billion by 2020.

Seniors	St. Charles County	Status	MO	U.S.
People 65+ Living Below Poverty Level *('10)*	3.9%	●	-	10.0%*
People 65+ Living Alone *('10)*	26.1%	-	-	28.0%*
Preventable Hospital Stays (discharges/1,000 Medicare pts) *('10)*	61	●	-	75*

*Indicates the lower limit of the 50th percentile.

● Worse than U.S. ● Similar to U.S. ● Better than U.S.

- According to the Missouri Department of Health and Human Services, preventable hospitalizations are defined as 'diagnoses for which timely and effective outpatient care can help reduce the risks of hospitalization by either preventing the onset of an illness or condition, controlling an acute episodic illness or condition, or managing a chronic disease or condition'.
  - A defined list of diagnoses and procedures was used to identify 'preventable' hospitalizations.

Source: Healthy Communities Institute

Chronic Conditions Seniors 65+

Chronic Conditions (65+, per 100,000 pop) *('09)*	St. Charles County	Status	MO
COPD Inpatient Hospitalization	59.9	🟢	114.0
Diabetes Inpatient Hospitalization	34.4	🟡	36.0
Heart Disease Inpatient Hospitalization	996.9	🔴	948.4
Cancer Inpatient Hospitalization	150.2	🔴	147.0
Total Inpatient Utilization	3,511	🔴	3,458

🔴 Worse than Mo 🟡 Similar to Mo 🟢 Better than Mo

Hospital Bed Count - 2011	St. Charles County	MO
Number of Hospital Beds (per 100,000 population)	209.4	231.4

Source: Healthy Communities Institute, AHA

CHRONIC CONDITIONS

- Chronic conditions are an issue due to obesity and lifestyle choices.
- Heart disease is the number one cause of death in St. Charles County.

Top 5 Causes of Death (2009)

Leading Causes of Death (all ages, per 100,000 pop)	St. Charles Co. Rank	Rate	MO Rank	Rate
Heart Disease	1	202.5	1	245.6
Lung Cancer	2	59.1	3	61.4
All Injuries and Poisonings	3	54.4	2	67.0
Chronic Lower Respiratory Disease	4	43.5	5	48.7
Stroke/Other Cerebrovascular Disease	5	42.8	4	54.9

Source: MICA

Chronic Condition	Metric	St. Charles County	Status	MO	U.S.
Diabetes	Adults with Diabetes *('09)*	8.3%	🟢	-	10.3%*
	Diabetic Screening-HbA1c in past yr (Medicare patients) *('09)*	82.5%	🟡	-	83.7%*
	Death Rate (per 100,000 pop) *('09)*	21.1	🔴	19.6	-
	Diabetes Pediatric ER Utilization (Age<15, per 100,000 pop) ('09)	0.2	🟡	0.3	-
Asthma	Adults with Current Asthma	6.9%	🟡	7.9%*	-
	Death Rate - Chronic Lower Resp Disease (per 100,000 pop) *('09)*	52.4	🔴	51.2	-
	Asthma Pediatric ER Utilization (Age <15, per 100,000 pop) *('09)*	8.4	🟡	9.9	-
Heart Disease	High Cholesterol Prevalence (Age 35+) *('07)*	17.6%	🟡	21.0%*	-
	High Blood Pressure Prevalence (>140/90, % of pop) *('07)*	18.9%	🟡	19.1%*	-
	Death Rate - Cerebrovascular Disease (Stroke)(per 100,000 pop) *('09)*	43.9	🔴	43.8	-
	Death Rate - Heart Failure (per 100,000 pop) *('09)*	20.8	🔴	20.0	-
	Death Rate - Heart Disease (per 100,000 pop) *('09)*	200.3	🟡	201.0	-

*Indicates the lower limit of the 50th percentile.

🔴 Worse than MO/U.S. 🟡 Similar to MO/U.S. 🟢 Better than MO/U.S.

Source: Healthy Communities Institute

CANCER

- Screening and early detection can help increase survival rates.
- Grief support is needed for survivors.

Cancer Screening	St. Charles County	Status	MO	U.S.
Pap Test History (18+ in last 3 years) *('07)*	83.3%	●	77.5%*	-
Colon Cancer Screening (50+ that have ever had test) *('07)*	71.6%	●	56.4%*	-
Mammography Screening (Medicare Population) *('09)*	70.9%	●	-	64.8%*

*Indicates the lower limit of the 50th percentile.

● Worse than MO/U.S. ● Similar to MO/U.S. ● Better than MO/U.S.

Source: Healthy Communities Institute

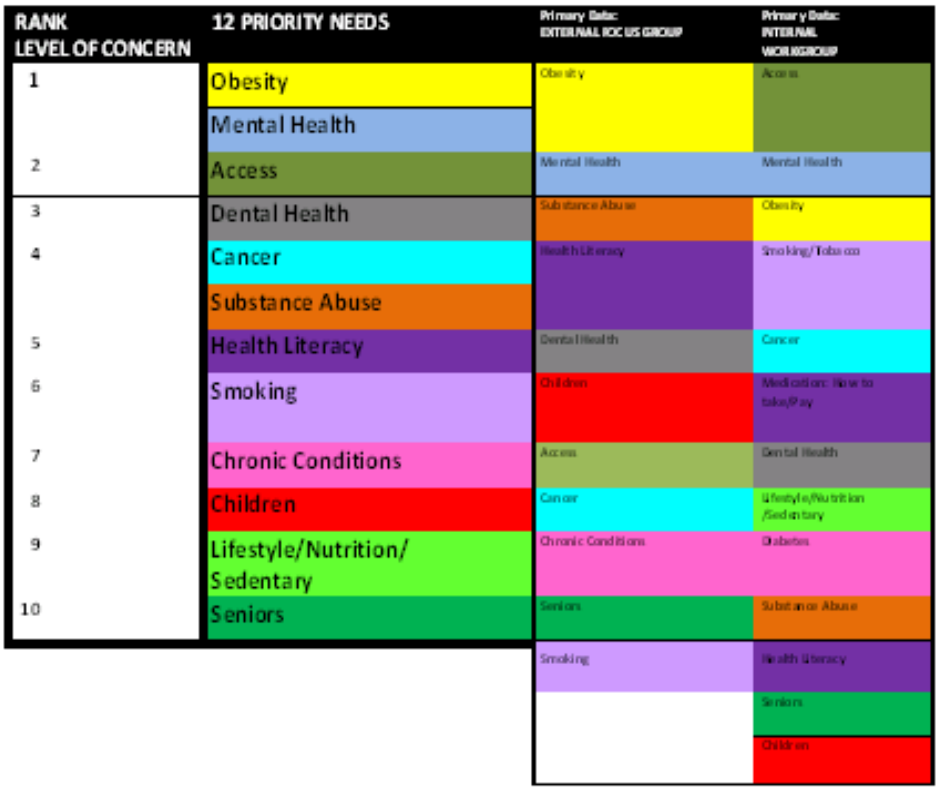
Cancer Type	Metric (per 100,000 pop)	St. Charles County	Status	MO	U.S.	HP 2020
All Cancer	Incidence Rate *('09)*	483.0	●	468.9	465.0	-
	Death Rate *('09)*	171.9	●	191.4	178.7	160.6
Breast	Incidence Rate *('09)*	131.6	●	121.9	122.0	-
	Death Rate *('09)*	22.1	●	24.9	23.0	20.6
Prostate	Incidence Rate *('09)*	140.7	●	132.9	151.4	-
	Death Rate *('09)*	17.4	●	22.7	23.6	22.1
Colorectal	Incidence Rate *('09)*	43.6	●	49.2	46.2	-
	Death Rate *('09)*	15.3	●	17.6	16.7	14.5
Lung & Bronchus	Incidence Rate *('09)*	78.6	●	79.5	67.2	-
	Death Rate *('09)*	55.6	●	60.2	50.6	45.5

● Worse than MO/U.S. ● Similar to MO/U.S. ● Better than MO/U.S.

- Incidence data are provided by the National Program of Cancer Registries Cancer Surveillance System (NPCR-CSS), Centers for Disease Control and Prevention and by the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program.

Source: Healthy Communities Institute

D. PRIORITIZATION OF HEALTH NEEDS



PRIORITIZATION BY THE COMMUNITY BENEFIT TEAM (CBT)

The External Focus Group and the Internal Workgroup identified the following list of priority needs for St. Charles County:

1. Obesity and Mental Health
2. Access
3. Dental Health
4. Cancer and Substance Abuse
5. Health Literacy
6. Smoking
7. Chronic Conditions
8. Children
9. Lifestyle/Nutrition/Sedentary
10. Seniors

The CBT utilized the Hanlon and PEARL Prioritization Model to determine the priority of the needs for St. Charles County.

Hanlon and PEARL Prioritization of Needs

Community Need	A-Size of Health Problem	B-Seriousness of Health Problem	C-Effectiveness of Intervention	D = [A + (2 X B)] x C D Rank

Rating	Size of Health Problem (percent of health problem)	Seriousness of Health Problem	Effectiveness of Intervention
9 or 10	>25%	Very Serious	80-100% Effective
7 or 8	10-24.9%	Relatively Serious	60-79% Effective
5 or 6	1-9.9%	Serious	40-59% Effective
3 or 4	0.1-0.9%	Moderately Serious	20-39% Effective
1 or 2	0.01-0.09%	Relatively Not Serious	5-19% Effective
0	<0.01%	Not Serious	<5% Effective
Guiding considerations when ranking health problems against the 3 criteria	Size of health problem based on baseline data collected form the individual community	Does it require immediate attention? Is there public demand? What is the economic impact? What is the impact on quality of life? Is there a high hospitalization rate?	Determine upper and low measures for effectiveness and rate health problems relative to those limits.

PEARL

(If any of the responses to the following questions are NO eliminate that need or proceed with corrective action to assure it is a YES.)

Propriety – Is a program for the health problem suitable?

Economics –Does it make economic sense to address the problem? Are there economic consequences if a program is not carried out?

Acceptability –Will a community accept the program? Is it wanted?

Resources –Is funding available

Legality –Do current laws allow program activities to be implemented? or potentially available for a program?

Obesity	**10**	**10**	**7**	**210 3**
Mental Health	**7**	**9**	**6**	**150 7**
Access	**7**	**10**	**6**	**162 5**
Dental Health	**5 1.3%**	**7**	**6**	**114 **9**
Cancer	**4 0.48%**	**9**	**7**	**154 *6**
Substance Abuse	**9**	**9**	**4**	**108 10**
Health Literacy	**9**	**7**	**8**	**184 4**
Smoking	**8**	**10**	**8**	**224 2**
Chronic Conditions	**10**	**10**	**8**	**240 1**
Children	**9**	**6**	**7**	**147 8**
Lifestyle/Nutrition/Sedentary	**8**	**7**	**7**	**154 *6**
Seniors	**7**	**6**	**6**	**114 **9**

PRIORITIZED LIST OF HEALTH NEEDS:

1. Chronic Conditions
2. Smoking
3. Obesity
4. Health Literacy
5. Access
6. Cancer --- Lifestyle/Nutrition/Sedentary*
7. Mental Health
8. Children
9. Seniors --- Dental Health**
10. Substance Abuse

The CBT recommended that the hospital continue or implement programs in the following areas:

- Chronic Conditions
- Obesity
- Smoking
- Access

The hospital has a number of initiatives in place to address these two health needs with existing partnerships between the St. Charles City-County Library District and St. Louis Children's Hospital.

IV. IMPLEMENTATION PLAN

A. COMMUNITY HEALTH NEEDS TO BE ADDRESSED

CHRONIC CONDITIONS

Barnes-Jewish St. Peters Hospital will support the management of chronic conditions by providing obesity and smoking cessation programs, two primary risk factors for disease development and poor control. The hospital also provides a Diabetes Self-Management Program and support programs such as Better Breathers for those with chronic breathing conditions, Mended Hearts and Women Heart for those with cardiac conditions, Conquer for those with any type of cancer, a Breast Cancer Support Group, and Man to Man for those with prostate cancer at any stage.

OBESITY

Rationale:

Overweight/obesity remains a growing concern in the county, state and country. Obesity is linked to major chronic conditions such as heart disease, diabetes, arthritis, cancer and stroke. The 2011 *Obese Adults in St. Charles County* was 25.2 percent, a decline from the 2007 rate of 29.3 percent; however, the 2011 rate of *Overweight Adults in St. Charles County* was 37.1 percent, an increase from the 33.9 percent rate in 2007 (HCI 2011).

If the obesity rate in St. Charles County is reduced it will positively impact the health of the community; therefore, the hospital will offer Biggest Winner of St. Charles County two times each year. Each session will last 10 weeks. Biggest Winner of St. Charles County does demonstrate a decrease in weight among participants by approximately two percent per round.

Program Goals:

I. Reduce the incidence of overweight and obese individuals in St. Charles County.
II. Improve management of obesity-related diseases in individuals.

Goal I. Objectives:

I. Reduce the incidence of overweight and obese individuals in St. Charles County.
   a. Increase Biggest Winner adult participation by 5 percent from the prior session.
   b. Overall educational class score for pre- and post-knowledge test will increase by 10 percent.
   c. Increase adult participation completion rate from 40 percent to 45 percent.
   d. Increase group weight loss from 2 percent to 3 percent per session.

Action Plan: Biggest Winner of St. Charles County

Since 2010, Barnes-Jewish St. Peters Hospital has offered the weight management program, Biggest Winner of St. Charles County, in collaboration with these partners:

- Progress West Hospital - provides social media support, program administrative support and educational programs
- St. Charles City-County Library District – provides weigh-in sites at all library branches and venues for programs
- St. Charles Community College – provide large venue for kickoff and celebration
- BJC Medical Group – provides physician expertise and multiple weigh-in sites
- Mid Rivers NewsMagazine – provides print publication at discounted fees
- St. Peters Rec-Plex, St. Peters – provides fitness experts and weigh-in site
- Renaud Spirit Center, O'Fallon – provides fitness experts and weigh-in site
- Fitness Fuzion – provides Zumba instruction and weigh-in site

In 2012, the program was recognized by Partners for Progress of St. Charles County with a Community Shapers Health Award. With a focus on prevention and wellness, the Biggest Winner is a model program that targets overweight and obese individuals.

To increase participation, the program will be promoted in the hospital community calendar that will be mailed to 100,000 homes in St. Charles County three times a year.

Prior to the 10-week competition, participants will attend a four-week education class on healthy weight loss and lifestyle changes. They will be offered a free dietitian consultation.

By keeping participants engaged and motivated, a higher percent should complete the 10-week session and be successful in losing weight. To maintain interest, additional programs will be conducted during the 10-week sessions. Attendees will be entered into prize drawings based on the number of programs attended. Biometric screenings will be provided at the beginning of the 10 week competition and at the end of the 10

weeks. Biometric screenings include blood pressure, Total Cholesterol and HDL and Body Mass Index (BMI).

The three individuals with the greatest percent of weight loss will be recognized and awarded prizes at the closing celebration. Before and after photos will also be displayed.

A family component will be introduced to the program to educate parents and children about healthy lifestyle choices and the health concerns associated with obesity. Education will be provided on healthy BMI ranges and risks associated with childhood obesity. Families will tract healthy behaviors and receive points based on specific behaviors and frequency. The family weighs-in as a combined weight 3 times during the competition.

Goal II. Objectives:

II. Improve management of obesity-related diseases in individuals.
   a. Diabetes Class 1 participants will increase by 5 percent over prior year.
   b. Fifty percent of Class 1 participants will attend Class 2.
   c. Class 1 average pre- and post-knowledge scores will increase by 10 percent.
   d. Twenty percent of Class 2 attendees will show a decrease in BMI from Class 1.
   e. Class 2 average post-knowledge scores will demonstrate retention from Class 1.

Action Plan: Diabetes Self-Management Program

The risk for diabetes developing or being poorly controlled increases in obese and overweight individuals. The hospital will offer a Diabetes Self-Management Class free to the community that will be promoted in the hospital community calendar mailed to 100,000 households in St. Charles County.

The program is ADA (American Diabetes Association) certified and is taught by a certified diabetes educator and a registered dietitian. Participants will attend two sessions, spaced three months apart. Class 1 and Class 2 will be repeated several times during the month in the morning and evening to make them easily accessible.

Individuals will meet with the dietitian and learn their BMI. They are also provided with resources and encouraged to enroll in the Biggest Winner of St. Charles County if overweight or obese. At the 3-month session their BMI is compared to see if they have lost weight.

Evaluation:

Both Biggest Winner of St. Charles County and the Diabetes Self-Management Class will be evaluated using a pre- and post-knowledge test for all participants. Progress will also be evaluated by tracking data on the number of participants, completion rates, average group weight loss, BMI, and biometric screenings.

SMOKING

Rationale:

Tobacco use brings premature death to almost half a million Americans each year, and it contributes to profound disability and pain in many others. Approximately one-third of all tobacco users in this country will die prematurely because of their dependence on tobacco. Areas with a high smoking prevalence will also have greater exposure to secondhand smoke for non-smokers, which can cause or exacerbate a wide range of adverse health effects, including cancer, respiratory infections, and asthma (source: HCI).

Tobacco use is the single most preventable cause of death in the United States (source: CDC). Smoking leads to premature death and contributes to health care costs. Tobacco use treatment is one of the most cost-effective clinical preventive services.

Currently, 16.6 percent of the adults in St. Charles County smoke cigarettes. While this number is trending downward from 18.3 percent during 2002-2008 (time series data), the percent of smokers still exceeds *The Healthy People 2020* national health target for adults, aged 18 years and older who smoke cigarettes, to reach 12 percent (source: HCI). Additionally, according to the Campaign for Tobacco-Free Kids, a 40-year decline in smoking leveled off about five years ago.

If there is a decrease in the number of people who smoke in St. Charles County it will have a positive impact on the health of the community. If information about risks associated with second-hand smoke is readily available to the community, they will be able to make informed decisions about their exposure risk.

Smoking cessation programs provide support and motivation; therefore, the hospital will offer eleven 4-week sessions yearly with a minimum of 5 participants per session.

Program Goals:

I. Increase the number of smokers that participate in a smoking cessation program.
II. Increase the public's awareness about the harmful effects of second-hand smoke.

Goal I. Objectives:

I. Increase the number of smokers that participate in a smoking cessation program.
    a. Seventy-five percent or more of class participants will complete the four weeks.
    b. Twenty-five percent or more of class participants that complete the four weeks will quit on their quit date.
    c. Ten percent or more of class participants that complete the four weeks will remain quit by 30 days post session.

Action Plan:

The hospital will offer an ongoing 4-week smoking cessation class free to the community. The program is facilitated by a registered nurse. The program will be promoted at library branches in the county, physician offices, local media, the hospital website, community programs and organizations, childbirth classes, support groups, hospital event calendars and more. Inpatient smokers are visited by the facilitator and assessed for readiness to quit.

The class covers the following topics in an interactive group setting that provides support and encouragement:

- Preparing to quit
- Choosing your quit date
- Coping with withdrawal
- Focusing on ways to stay healthy

After the program is complete the facilitator will do follow-up calls to participants at 30 days. Participants can repeat the class if necessary for support. The facilitator will monitor participant feedback following the class and make recommendations for adding a support group to the program.

Goal II. Objectives

II. Increase public awareness about the harmful effects of smoking.
   a. Provide a minimum of 5 public presentations annually about the harmful effects from smoking and second-hand smoke.
   b. Include messaging in all community calendars published by the hospital and direct mailed to 100,000 households in St. Charles County.

Action Plan:

The hospital will provide topic experts to deliver community presentations covering the harmful effects of smoking and second-hand smoke. These experts will include physicians and nurses from the Siteman Cancer Center, the smoking cessation program facilitator and the BJC School Outreach Program. The hospital will incorporate community service messaging into the community calendar along with the smoking cessation program information.

Evaluation:

The smoking cessation program will be evaluated using participant self-reported data on quitting. Progress will be evaluated by tracking data on the number of participants, program completion rate, and learning of coping mechanisms. The number of educational programs and direct mail messages will also be tracked.

ACCESS

Rationale:

Access to health care is an ongoing and national concern. Many issues fall under the umbrella of access. All nonprofit hospitals have policies in place to provide financial assistance to individuals that are underinsured or uninsured. In addition, these policies have been recently revised to expand the number of individuals qualifying for financial assistance. Barnes-Jewish St. Peters Hospital, as a member of BJC Health care, will advocate for policies that support sustainability and make sense for our community.

Organizations in place that address access issues in St. Charles County:

- Volunteers in Medicine (two sites in St. Charles County)
- Crider Health Center - integrated health care for underserved children and adults, including primary care, dental care and behavioral health at Crider Health Center, opened in September 2010. As part of the transformation, Crider Health Center obtained the designation of a Federally Qualified Health Center (FQHC)." A FQHC is a health care provider that serves medically underserved population, primarily those with Medicaid or without insurance.

Barnes-Jewish St. Peters Hospital provides the following services to support access for the residents of St. Charles County.

- Contracts with an outside vendor to provide an onsite Patient Account Representative who works with self-pay patients to determine eligibility for Medicaid or other insurance and facilitates the process if applicable.
- Communicates financial assistance and charity care guidelines to all patients.
- Provides free flu shots to the community.
- Provides Heart Check units at Mid Rivers Mall and the Middendorf-Kredell Library for patrons to access free blood pressure checks and information about heart attack and stroke. Current data for 1st quarter 2013 indicates 2147 readings at Middendorf-Kredell Library and 8880 readings at Mid Rivers Mall. Rolling digital messages on each unit provide information about acceptable ranges and other heart/stroke related information.

Program Goal:

1. Provide access to under insured and uninsured individuals.

Goal I. Objectives:

I. Provide access to under insured and uninsured individuals.
   a. Maintain outside vendor service for determining insurance eligibility and facilitating the process.
   b. Provide 1500 free flu shots to the community.

c. Conduct one health fair at Mid Rivers Mall in 2014 as part of the Heart Check program.

Action Plan:

Barnes-Jewish St. Peters Hospital will contract with an outside vendor to provide an onsite Patient Account Representative. This individual meets with uninsured patients to determine their eligibility for any insurance: If eligible, they receive assistance through the process. Patients that are not eligible are provided with financial assistance information and support.

The hospital will provide 1500 free flu shots to the community. A portion of the shots will be administered to the homeless in the City of St. Charles. The hospital will also administer flu shots to individuals with developmental disabilities in residential and day activity centers in St. Charles County.

Barnes-Jewish St. Peters Hospital funds a Heart Check unit at the mall and at the library. This contract includes the option to conduct an onsite event at the mall. The hospital will provide one health fair annually to reach individuals with health information, resources and screenings.

Evaluation:

The number of individuals that are contacted regarding eligibility for insurance and those that obtain insurance is tracked. Charity care is reported. The hospital tracks flu shot clinic locations and number of shots administered. The hospital will track the number served at the health fair, individual and aggregate findings for screenings, and the number of referrals made.

Senior Health and Health Literacy were not included in the priorities selected by the Community Benefit Team; however, the hospital plans to continue initiatives already in place for these community needs.

SENIORS

Barnes-Jewish St. Peters Hospital and Progress West Hospital offer a membership program at the St. Peters City Hall that meets monthly called *Showcase on Seniors.* The program supports senior's need for socialization and education about matters that impact them. Program topics cover a variety of topics including health and wellness, health literacy, fraud prevention and more. Progress West Hospital will formally address this community need on their hospital implementation plan.

HEALTH LITERACY

Barnes-Jewish St. Peters Hospital supports health literacy through a partnership with Progress West Hospital and the St. Charles City-County Library. The hospital provides financial support and ongoing programs at multiple library branches to educate the community about health issues and consumer questions. Progress West Hospital will formally address this community need on their hospital implementation plan.

B. COMMUNITY HEALTH NEEDS THAT WILL NOT BE ADDRESSED

MENTAL HEALTH AND SUBSTANCE ABUSE

Barnes-Jewish St. Peters Hospital does not offer a behavioral health program. Organizations are in place to address mental health and/or substance abuse issues:

- Bridgeway Behavioral Health
- Crider Health Center
- County Health Department
    - St. Charles County Drug Task Force
- Preferred Family Care

DENTAL HEALTH

Barnes-Jewish St. Peters Hospital does not provide preventive dental services. We do recognize that this is a serious health concern for those lacking dental care. Patients that are seen in the emergency department are referred to a dentist but this is often a difficult process as the county lacks providers willing to care for the underinsured or uninsured.

CHILDREN

Barnes-Jewish St. Peters Hospital's partner hospital, Progress West Hospital will be addressing pediatric services and programs.

C. SPECIFIC INPUT FROM THE ST. CHARLES COUNTY HEALTH DEPARTMENT

HEALTH DEPARTMENT REPRESENTATIVE: Gil Copley

TITLE/DEPARTMENT NAME: Director, St. Charles County Department of Community Health

SOURCE OF NEED INFORMATION: Written feedback received on September 27, 2012

PUBLICE HEALTH DEPARTMENT IDENTIFIED NEED #1: Lack of health care services for the uninsured and poor, especially primary care

Barnes-Jewish St. Peters hospital will address this need by maintaining an outside vendor for determining eligibility for Medicaid or other insurance and facilitating the enrollment process; providing 1500 free flu shots to the community; conducting a health fair at a local mall and providing free blood pressure checks and information about heart attack and stroke.

The anticipated impact of these programs is to increase access to health services to those to whom they are currently unavailable.

The hospital will measure the effectiveness of these initiatives by tracking the number of individuals who are contacted regarding insurance eligibility, the number of flu shots administered and the number served at the health fair.

PUBLICE HEALTH DEPARTMENT IDENTIFIED NEED #2: Shortage of dental health services and the uninsured and poor

This need will not be addressed by Barnes-Jewish St. Peters Hospital because it is beyond of the scope of services that the hospital provides.

PUBLICE HEALTH DEPARTMENT IDENTIFIED NEED #3: Inadequate disaster planning and resource identification, whether manmade or natural (i.e. major earthquake, bioterrorism, etc.)

Barnes-Jewish St. Peters Hospital does not have sufficient resources to address all of the identified needs, and did not identify this as one of the top health needs of the community.

APPENDICES

APPENDIX A

PARTICIPANT ROSTER

1. Paul Becker	Fort Zumwalt School District
2. Gil Copley*	St. Charles Department of Community Health
3. John Glenn	United Way
4. Chuck Gross**	St. Charles County
5. Laura Heebner	Crider Center
6. Terri Hirsch	Mid East Area Agency on Aging
7. Claire Jacobi	St. Charles City County Library District
8. Sharon Johnson	Youth in Need
9. Ty Joyce	Renaud Spirit Center
10. Denise Liebel	United Services
11. Curt Neff	Calvary Church
12. Dr. David Poggemeier	Volunteers in Medicine
13. Laura Smith	Wentzville School District
14. Denise Ulett	St. Charles City County Library District
15. Dr. Joe Viviano***	Advanced Internal Medicine

Observers:

Angela Chambers (focus group facilitator)	BJC Market Research
John Antes	BJSPH/PWHC
Susan Bizelli	BJSPH/PWHC
Debra Denham	BJC HealthCare
Diane Fix	BJSPH
Karley King	BJC HealthCare
Sarah Lovegreen	Oasis
Barbara McLaurine	BJSPH/PWHC
Christy Moore	BJC Strategic Planning
Karen Prideaux	BJSPH/PWHC
Deb Venable	BJSPH

*Gil Copley passed away in late 2013.
** Chuck Gross is no longer with St. Charles County Government.
*** Dr. Joe Viviano retired in 2013.

APPENDIX B

ST. CHARLES COUNTY NEEDS ASSESSMENT WORKSHEET

1. In your opinion, what are the three greatest health needs or challenges that exist within the St. Charles county population?

1.)

2.)

3.)

2. To your knowledge, what resources are currently available in St. Charles County for addressing each one of them? Who/what organization is trying to address them?

1.)

2.)

3.)

3. In your opinion where is the largest gap between an existing need and available services in St. Charles County?

APPENDIX C

RESOURCES AVAILABLE

Needs	Resources
Access to care for the un/under insured	Volunteers in Medicine
- lack of primary care options	Crider Center FQHC
- overuse of the ER for non-urgent issues due to lack of "medical home"	hospital/system donated services
- transportation to health appointments	Youth in Need
- Lack of health insurance for adults	
Preventive/primary healthcare for the un/underinsure	Drug co-pay coupon cards and programs
- few free or walk in services exist in St. Charles County; many residents must go to St. Louis county and city to access free/reduced federally qualified health centers	
Mental health services	Bridgeway
- for pediatric populations	Crider Center
- for seniors	County Health Department
- for families in crisis	Preferred Family Healthcare
Healthy living, nutrition, childhood nutrition	
Public health and emergency preparedness are suffering from reduced funding.	FQHCs have limited services
	Local hospitals
Dental health services for the uninsured	
Drug use/abuse services	County government?
- increased prevalence of heroin, designer drugs such as "spice" "K-2" and bath salts	St. Charles County Drug Taskforce for education and enforcement WIC?
	Preferred Family Healthcare and Bridgeway for addiction treatment
Care for children	
- Pediatric orthopedists	Too few on east side of county
- communication between medical providers and schools	Crider Center, SSM, CenterPointe, Crisis Nursery
- obesity of youth	
-	-
Health Literacy	
- read and understand health info	Health Literacy MO training to write in plain language

- find health info on own	St. Charles county library
- understand doctor's advice	County Health Department
Seniors	Good dementia care facilities
- mental health services	
- health literacy issues	
- information to care givers	
Obesity	Only a few
- among both adults and youth	Biggest Winner: BJC and Progress West
Smoking - having a smoke-free county	
Disaster planning for natural or man-made events	Planners exist but coordinating alternative care sites and massive diversions is difficult and requires work between public health, hospitals and emergency mgt
Walkable/bikeable communities	
Worksite wellness options that include health vending and food options as well as promotion of physical activities	
Interactions between community partners	MEAAA Care Transitions
Comprehensive wound care in a single location	BJSPH and PW are exploring this issue
Coordination of care and information flow between health care providers	

APPENDIX D

FEEDBACK ON GREATEST GAPS BETWEEN NEEDS AND AVAILABLE RESOURCES

Mental health services, especially children

Transportation to access services

Preventive/primary healthcare for the un/underinsured

- Few free or walk-in services exist in St. Charles County; many residents must go to St. Louis county or St. Louis city to access free/reduced federally qualified health centers

Health literacy compliance

Healthy living, nutrition, childhood nutrition

Public health and emergency preparedness are suffering from reduced funding

Getting information to senior citizens and their caregivers

Timely access to primary care doctors who are able to focus on the patient and are not distracted by "paperwork"

APPENDIX E

St. Charles County Needs Assessment
Focus Group #2 Notes Oct. 23, 2012

Based on the feedback from the first focus group, a presentation of secondary data was shared with community leaders to demonstrate the relative importance of the health care needs of St. Charles county residents. This presentation included data on:

- Demographics and Socioeconomic Indicators for St. Charles county
- Access, including preventable hospitalizations, physician availability, transportation
- Mental Health
- Healthy Lifestyles, including overall population health, smoking and obesity, food deserts
- Dental Health
- Substance Abuse
- Pediatrics
- Health Literacy
- Seniors, including chronic conditions in Seniors
- Chronic Conditions
- Cancer screening and rates

These are some of the comments made during the presentation:

Page 9, Regarding the Hispanic population, acknowledge that those population numbers may be under-reported due to lack of trust of census takers. Head Start families at Youth in Need are 47% Hispanic.

Page 13, Access, discussion of emergency room visits at the Lincoln County hospital and that the hospital has not been overly concerned about the inappropriate use of the hospital. Is it due to the fact that they are considered a critical access hospital?

Page 14, Access, how are preventable hospitalizations defined? We may be able to prevent an admission if the patient has a regular source of care for preventive visits, is compliant and taking medication as required.

Page 18, Mental Health, question about the Healthy People 2020 goals: Why is the goal for suicide not 0? (It is because these goals are based on the 2010 data, with the goal to decrease them below that level.)

Page 20, Physical environment ranking: may be due to high levels of ozone. It was noted that the only ozone sensor in St. Charles County is near St. Charles city, across the river from Illinois.

Page 24, Dental Care, question about the accuracy of the data on the number of dentists in St. Charles County. It seems too low. We need to check this calculation.

The Youth in Need representative noted that Head Start children are taken to the dentist as part of their program. For many of them, and their siblings, it is the first time they have ever seen a dentist. There are children whose dental caries are so bad that they require sedation to fill their teeth.

Page 26, Substance Abuse: the Director of the Department of Public Health noted that he had just approved a substitute for pseudoephedrine that could not be chemically altered and made into meth. It is produced by a company in Westport, and he is hopeful that it will have an impact on crystal meth problem in St. Charles County.

Page 28, Pediatrics: the rise in pertussis cases may be due to adults who become susceptible because their vaccination is no longer effective and then transmit the virus to others. Medicare will not pay to have adults over age 65 revaccinated. There are also children whose vaccine has lost its effectiveness but who will not be re-vaccinated for a few more years. The Director of Public Health also noted that this number ebbs and flows.

Page 33, Seniors: Can we document how preventable hospital stays are defined?

Page 34, for the chronic condition hospitalizations, can we document how many hospital beds there are in St. Charles county? Even though Seniors are a smaller part of the St. Charles population, their hospital utilization is much higher than MO. Maybe we have more beds per capita? A bed built is a bed filled?

Are the higher levels of hospitalization due to patients and physicians focusing on catching illness early rather than waiting until patients are sicker?

Page 36, Top Five Causes of Death: Add the rates to the table. Can we calculate an overall death rate for cancer?

Page 37, Even though prevalence of certain diseases/conditions (asthma, diabetic screening, high cholesterol, HBP) are around the state average, the death rates are MUCH higher than for the state overall. WHY?

Page 40, Cancer: Where do the incidence rates come from? How are these collected?

Why are the rates of some cancers higher in St. Charles? Is it because people are screened and cancer is detected earlier, resulting in higher incidence rates but lower death rates?
- Screening levels that are high may be viewed positively for the county because they suggest early detection and subsequently lower death rates.

As a community, St. Charles County is performing very well on many of these metrics. As a community, we need to decide what we should be focusing on to get us where we want/need to be.

APPENDIX F

St. Charles Air Quality Monitoring Study

St Charles
Air Quality Monitoring Study

School of Medicine
University of Missouri Health System

CASE
Campus-Community Alliances for Smoke-Free Environments

Stanley R. Cowan, RS
University of Missouri – Columbia
School of Medicine
Department of Family & Community Medicine

May 20, 2013

Executive Summary

Secondhand smoke (SHS) was classified in 1992 by the U.S. Environmental Protection Agency (EPA) as a cause of cancer in humans. It contains more than 7,000 chemicals of which more than 250 are known to be poisonous. For such a substance, there is no minimum safe level of exposure. The 2006 U.S. Surgeon General's Report, reviewing thousands of research studies, finds SHS is a cause for stroke, emphysema, bronchitis, asthma, respiratory infections, Sudden Infant Death Syndrome and other illnesses. SHS is responsible for almost 50,000 deaths per year from heart disease and lung cancer in nonsmokers. The 2006 Surgeon General's Report concluded that policies for smokefree environments are the most effective method of reducing SHS exposure in public places and workplaces.

Smokefree policies are becoming the social norm and have been associated with reduced rates of hospitalizations for heart attacks, strokes, emphysema, asthma, bronchitis and pneumonia.

This study compared air quality in St Charles public places and workplaces to the EPA Air Quality Index. Indoor air quality for fine particulate matter pollution ($PM_{2.5}$ particles) was sampled in nine public places on May 16, 2013. Six locations allowed smoking indoors; three did not. The EPA determined that even short term exposure to $PM_{2.5}$ air pollution can aggravate irregular heartbeat, set the stage for heart attacks and, for those with heart disease, can cause a heart attack with no warning symptoms.

Key findings of this study include:

- Particulate matter air pollution for –
    - The 6 smoking-allows locations averaged 89 $\mu g/m^3$ (EPA rating of "unhealthy").
    - The 3 non-smoking locations averaged 10 $\mu g/m^3$ (EPA rating of "good").

  The level of particulate matter air pollution was nearly 9 times higher in places that allowed smoking compared to those where smoking was not allowed.
- Due solely to their occupational exposure, a full-time employee in a St Charles public place that allows smoking would be exposed to 140% the EPA's average annual limit for particulate matter air pollution during an 8-hour workshift.
- On average, only 7.3% of people were actively smoking in the locations where smoking was permitted. This is $4/10^{ths}$ the adult smoking prevalence of 18.2% for St Charles County, and refutes the commonly held misperception that a high percent of hospitality industry customers or employees smoke.
- Full-time employees in public places that allow smoking are exposed to 140% the established annual EPA exposure limit to protect human health from fine particle air pollution.

The findings of this study are consistent with those of similar previous studies that found that approximately 90% or more of the fine particle pollution could be attributed to SHS.

Introduction

Secondhand smoke (SHS) contains more than 7,000 chemicals, of which more than 250 are known to be either toxic and/or carcinogenic, and by itself was classified in 1992 by the U.S. Environmental Protection Agency as a human carcinogen.[1] Exposure to SHS is responsible for an estimated 35,000 deaths per year from heart disease and lung cancer in nonsmokers.[2] The U.S. Surgeon General issued reports in 1984 and 2006 concluding SHS was also a cause for stroke, emphysema, bronchitis, asthma, respiratory infections, Sudden Infant Death Syndrome and other illnesses. The Surgeon General also concluded there is no safe level of exposure to SHS.[1,3,4]

With specified exemptions, Missouri state law requires all public places to prohibit smoking unless designated smoking areas are provided. Such designated areas are not to exceed 30% of its entire space. Missouri state law does not preempt local governments from enacting more stringent smokefree ordinances.

Chapter 220 of the current city code of ordinances relates to health, safety and sanitation; specifically mosquito control, nuisance control, litter and handbills. City ordinances do not specifically address smoking in public places. However, text in the nuisance ordinance can apply to smoking in public places as shown in excerpts below with emphases added ***thus***.

> SECTION 220.020: NUISANCES ENUMERATED
>
> In addition to any other act declared to be a nuisance by this Code of Ordinances or any other ordinance of the City, nuisances are defined and declared to be as follows:
>
> 1. ***Any act done or committed or suffered to be done or committed by any person or any substance*** or things kept, maintained, placed or ***found in or upon any public*** or private ***place within the City which is injurious or dangerous to the public health***...;
> 2. ***Any business carried on or pursuit followed or act done by any person to the hurt, injury, annoyance, inconvenience or damage of the public;***
> 18. Any violation of this Code of Ordinances which***, if continued, is liable to endanger, annoy or injure the public;***
> 19. Every act or thing done or made, permitted, allowed or continued on any property, public or private, by any person, his/her agent or employee ***to the damage or injury of any inhabitants of this City***.

Policies prohibiting smoking are the most effective method for eliminating SHS exposure in public places and workplace environments. While many businesses voluntarily establish smokefree policies, the hospitality industry (including restaurants, bars, bowling alleys, casinos, etc.), representing approximately 10-14% of workplaces, has been slow to enact smokefree policies. Consequently, workers and patrons are exposed to SHS. An increase in state- and city-wide smokefree ordinances across the United States has resulted in declining SHS exposure among the overall U.S. population,[5] but a majority of Missouri municipalities and populations remain without comprehensive smokefree laws.

To protect public health, the U.S. Environmental Protection Agency (EPA) issued National Ambient Air Quality Standards which include fine particulate matter as one of the criteria pollutants. The EPA first issued standards for daily exposure to pollution consisting of particulate matter of 2.5 microns in size ($PM_{2.5}$) in 1971 with periodic revisions, the latest in 2006 and currently in a public comment period. Current EPA standards based on review of thousands of peer-reviewed scientific studies recommend exposure during a 24-hour period to be not greater than 35 $\mu g/m^3$. Further, over the period of a year a person's exposure should not have a daily average of more than 15 micrograms per cubic meter ($\mu g/m^3$). EPA assigned levels for $PM_{2.5}$ ranging from "good" to "hazardous" with accompanying health advisories as presented in Table 1.[6] Because the impact on health is the same regardless of whether the air is in an outdoor or indoor environment, the EPA index is a valuable measure of health risk.

Table 1. U.S. Environmental Protection Agency – Air Quality Index

Air Quality	$PM_{2.5}$ ($\mu g/m^3$)	Health Advisory
Good	≤ 15	None
Moderate	16-35	Unusually sensitive people should consider reducing prolonged or heavy exertion
Unhealthy for Sensitive Groups	36-55	People with heart or lung disease, older adults and children should reduce prolonged or heavy exertion
Unhealthy	56-150	People with heart or lung disease, older adults and children should avoid prolonged or heavy exertion. Everyone else should reduce prolonged or heavy exertion
Very Unhealthy	151-250	People with heart or lung disease should avoid all physical activity outdoors. Everyone else should avoid prolonged or heavy exertion.
Hazardous	≥ 251	People with heart or lung disease, older adults, and children should remain indoors and keep activity levels low. Everyone else should avoid all physical activity outdoors.

Methods

Overview

Particulate matter smaller than 2.5 micrograms ($PM_{2.5}$) was measured. Particles of this size are easily inhaled deep into the lungs, can pass into the bloodstream, and are associated with pulmonary and cardiovascular disease and mortality.

Indoor air quality for fine particulate matter pollution was sampled for 9 public places in St Charles on May 16, 2013. Six of the locations allowed smoking indoors, three locations did not.

Measurement Protocol

A TSI Sidepak AM510 Personal Aerosol Monitor (TSI, Inc., St. Paul, MN) was used to sample and record the levels of particulate matter pollution in the air. The Sidepak uses a built-in sampling pump to draw air through the device, where the particulate matter in the air scatters the light from a laser to assess the real-time concentration of particulate matter smaller than 2.5 micrograms to be recorded as $PM_{2.5}$. The concentrations of particulate matter were recorded as micrograms per cubic meter ($\mu g/m^3$). The Sidepak was zero-calibrated prior to each use by attaching a HEPA filter according to the manufacturer's specifications. The Sidepak was set to a one-minute log interval, which averages the previous 60 one-second measurements.

Locations were visited between 6:30 p.m. and 10:00 p.m. A minimum of 45 minutes was spent in each location to monitor air for data collection. The number of people and the observed number of burning cigarettes were recorded during the air quality sampling period. A sonic measuring device was used to measure room dimensions, enabling unobtrusive calculation of the volume of each location. Active smoker density was calculated by dividing the average number of burning cigarettes by the volume of the room in meters. The number of burning cigarettes was divided by the number of people at the location to determine the percent of people smoking.

Air quality sampling was conducted discreetly in order to not disturb the normal behavior of workers or patrons. For each location, the first and last minute of logged data were removed because they were averaged with outdoor and/or entryway air. The remaining data points were averaged to provide an average $PM_{2.5}$ concentration within the location.

Descriptive data including the location volume in cubic meters (m^3), number of people, number of burning cigarettes, and smoker density (number of burning cigarettes per 100 m^3) were recorded for each location and averaged for all locations. Additionally, the results are compared to the EPA Air Quality Index.

Results

The average $PM_{2.5}$ level for the 6 sampled smoking-allowed locations was 89.0 $\mu g/m^3$ (range: 18.2 – 243.2 $\mu g/m^3$). The 3 smokefree locations had an average $PM_{2.5}$ level of 10.0 $\mu g/m^3$ (range: 4.9 – 13.5 $\mu g/m^3$). The level of particulate matter air pollution was 8.9 times higher in those locations that allowed smoking compared to those prohibiting smoking. An average 7.3% of patrons were smoking at any given time. Table 2 provides additional details of the monitored venues.

Location	% burning cigarettes to # people	Active smoker density	Average $PM_{2.5}$ level ($\mu g/m^3$)	EPA Air Quality Index category
A*	-	-	13.5	Good
B*	-	-	4.9	Good
C*	-	-	11.6	Good
Average	**-**	**-**	**10.0**	**Good**
D	3.1	0.14	97.5	Unhealthy
E	15.3	0.07	27.6	Moderate
F	4.6	1.39	243.2	Very Unhealthy
G	6.0	0.49	41.4	Unhealthy to Sensitive Groups
H	6.7	0.24	106.2	Unhealthy
I	8.0	0.18	18.2	Moderate
Average	**7.3**	**0.42**	**89.0**	**Unhealthy**

*smokefree venues

Figure 1 is a presentation of the air quality data of monitored locations with comparison to the EPA Air Quality Index standards.

A study of eight hospitality venues in Delaware before and after a statewide smokefree law was implemented found about 90% of the fine particle pollution could be attributed to tobacco smoke.[8] Similarly, a study of 22 hospitality venues in western New York found a 90% reduction in $PM_{2.5}$ levels in bars and restaurants and an 84% reduction in large recreation venues.[9] Similar findings of reductions of more than 90% of $PM_{2.5}$ levels in public places were reported after several communities in Kentucky implemented smokefree workplace ordinances.[10]

Air quality tested in smoking-allowed public places and workplaces in 19 Missouri communities was rated as "unhealthy" according to EPA standards. Employees in these places were exposed to 2½ times the EPA's average annual daily limit for this pollution. Re-testing of air quality in these same workplaces after 9 communities implemented smokefree ordinances saw an 88% reduction in air pollution and employee exposure was reduced to only 1/4th the EPA limit.[11]

Other studies have directly assessed the effects of SHS exposure on human health. One study found that respiratory health improved rapidly in a sample of bartenders after a state smokefree workplace law was implemented in California, as well as after national smokefree laws were implemented in Ireland and Scotland.[12,13,14] Additional studies found a significant reduction in cotinine (a metabolic byproduct of nicotine) and of polycyclic aromatic hydrocarbons (a known human carcinogen found in SHS) in the bodies of hospitality industry workers or customers.[15,16] Examination of blood chemistries of smokers and nonsmokers found harmful effects on the cardiovascular system after even brief exposures of only minutes to hours.[17,18]

A "66 casino" study by Repace found that incremental $PM_{2.5}$ pollution from secondhand smoke in approximately half of the smoking-allowed casinos exceeded a level known to impact cardiovascular health in nonsmokers after less than 2 hours of exposure, posing acute health risks to patrons and workers.[13]

The EPA determined that even short term exposure to $PM_{2.5}$ air pollution can aggravate irregular heartbeat, set the stage for heart attacks and, for those with heart disease, can cause a heart attack with no warning symptoms. Older adults are at greater risk as they may have undiagnosed heart disease.[19] This is worrisome as the most common first symptom of heart disease is a heart attack; and about half of first-time heart attacks are fatal.

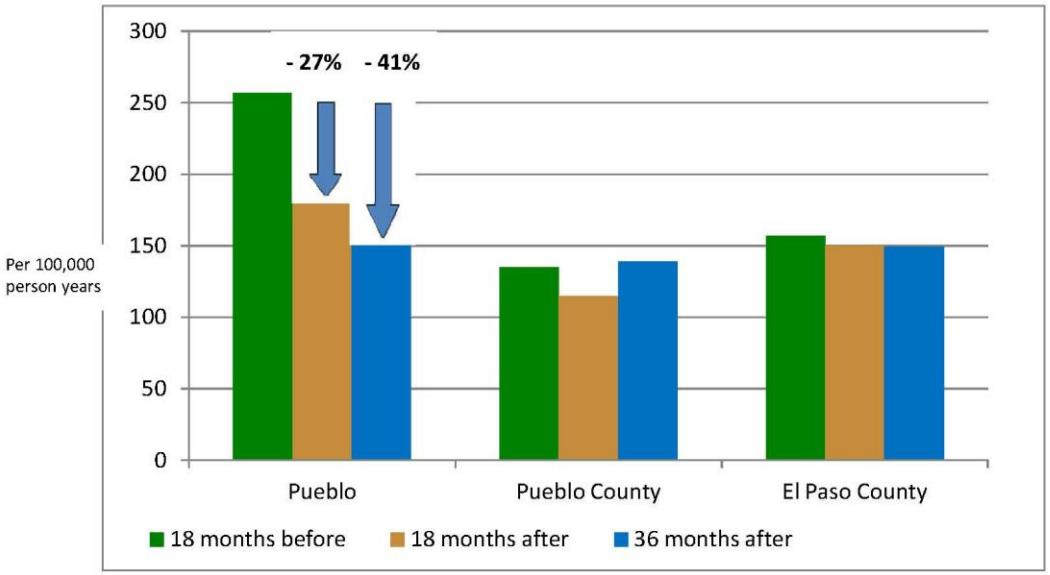
Still additional studies found a significant reduction in cotinine (a metabolic byproduct of nicotine) and of polycyclic aromatic hydrocarbons (a known human carcinogen found in SHS) in the bodies of bar and/or casino employees or customers.[20,21] A study of air quality in Pennsylvania casinos found that despite low smoking prevalence and with ventilation rates 50% higher than those previously recommended by engineers for smoking-permissible casinos, levels of polycyclic aromatic hydrocarbons and particulate matter were 4 and 6 times respectively that of outdoor air and cotinine levels increased among customers. This study estimated 6 Pennsylvania casino workers' deaths annually per 10,000 at risk; a risk 5 times greater than that of Pennsylvania mining disasters.[22]

With such evidence becoming more established and recognized by policymakers, a resolution was adopted on January 10, 2009 by the Executive Committee of the National Council of Legislators from Gaming States to support 100% smokefree gaming venues as a prerequisite for issuing/ renewing gaming licenses.[23] To date, 19 out of the 40 states that have casinos or racinos also have laws requiring non-tribal casinos to be smokefree.[24] Over 500 state-regulated non-tribal gambling facilities are required to be smokefree by law.[25]

Additional studies report an average of a 17% reduction in hospital admissions for acute myocardial infarctions (heart attacks) within the first year after implementation of a smokefree ordinance or law in the communities.[26,27,28,29,30,31,32,33,34,35,36] Of note in Figure 2 are reports in which hospitalizations for heart attacks were reduced by 28% in Pueblo, Colorado, within the first

18 months after their smokefree ordinance was implemented; and that the decline continued to a 41% reduction within the first 36 months after the time the ordinance was implemented. However, rates in surrounding Pueblo County and adjacent El Paso County, which had no smokefree ordinances, remained virtually flat for the same periods.[37,38]

Figure 2 – Hospitalizations for Heart Attacks; Pueblo, Colorado 2002-2006



A recurring theme is demonstrated by a growing body of evidence showing that smokefree policies are proven to provide health benefits for both smokers and nonsmokers. Health benefits are especially greater among non-smokers as seen in studies that found reductions of 30% - 60% among non-smokers for hospitalization for heart attack within the first year of law for smokefree workplaces and public places.[19,39] A Swiss study found a 50% reduction for such hospitalizations among people previously diagnosed with coronary heart disease.[30]

Such evidence reinforces the Centers for Disease Control & Prevention recommendation that physicians advise their patients at risk of or with known coronary heart disease to avoid places where they may be exposed to secondhand smoke.[40]

Conclusions

Smoking-allowed public places in St Charles had nearly 9 times the fine particulate matter air pollution of the smokefree public places. Average air quality for a smokefree public place was rated "good" by EPA standards, while that of smoking-allowed locations was "unhealthy".

Full-time employees in public places that allow smoking are exposed to 140% the established annual EPA exposure limit to protect human health from fine particle air pollution.

Employees and patrons in public places in St Charles where smoking is allowed are exposed to unhealthy levels of an air pollutant known to cause heart disease, cancer and other diseases. Peer-reviewed studies have demonstrated that policies prohibiting smoking in public places and workplaces dramatically reduce SHS exposure and improve employee and public health.

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RESOLUTION

OF THE BOARD OF DIRECTORS

OF

BARNES-JEWISH ST. PETERS HOSPITAL

WHEREAS, management seeks approval of its proposed Community Health Needs Assessment and Implementation Plan for the hospital.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

The Community Health Needs Assessment and Implementation Plan is hereby approved by the governing body of Barnes-Jewish St. Peters Hospital.

Adopted this 30th day of July, 2013.