

Progress Toward *Building A Healthier St. Louis*



2008

ACCESS TO CARE DATA BOOK

**AN UPDATE TO THE 2003 RHC REPORT
“*BUILDING A HEALTHIER ST. LOUIS*”**

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Key Findings

2008 Access to Care Data Report



- Primary Care and Specialty Care Safety Net Sites Continue to Absorb Additional Uninsured and Medicaid Volumes
 - St. Louis safety net institutions provided over 610,000 primary care visits in 2007, 85% of which served uninsured and Medicaid patients – this represents a 3.5% increase over prior year and a 15% increase since 2001
 - St Louis safety net institutions provided over 220,000 specialty care visits to uninsured and Medicaid patients in 2007, an 3.4% increase over 2006 and 12% increase since 2001
- Uninsured and Medicaid patients had approximately 250,000 emergency department visits in 2007, a 1.9% increase as compared to the prior year. Medicaid and uninsured patients accounted for 41.3% of all ED encounters in 2007 compared to 41.4% in 2006.
- Recent efforts to preserve primary care capacity have prevented over 76,000 additional visits to emergency departments in 2007

Key Findings

2008 Access to Care Data Report



- A very limited number of organizations serve the health care needs of over 90% of the uninsured in our community
- These core safety net institutions face significant financial challenges that may threaten the stability of the safety net and could negate the access gains made over the past five years
- Collaboration remains at historic high levels among health care providers serving the uninsured, with several large-scale initiatives aimed at improving health care delivery for vulnerable populations in St. Louis City and County. These include:
 - Consolidation of provider organizations to preserve and enhance federal funding
 - Improving the timeliness and quality of health care by sharing electronic medical records across safety net organizations
 - Creation of a regional medical care home initiative to ensure access to a primary care services for the region's uninsured and Medicaid populations
 - Transformation of our community's behavioral health system for those most in need

Key Findings

2008 Access to Care Data Report



- Despite these new partnerships and initiatives, our region continues to experience comparatively poor health outcomes, especially for many African-Americans. As detailed in the RHC's 2003 report "Building a Healthier St. Louis" and in subsequent reports by the city and county health departments, these disparities are particularly concerning for persons living in North St. Louis City and in certain areas of North St. Louis County. This is evidenced by the following health outcome statistics detailed in the RHC's 2008 Access to Care Data Report:
 - Death rates from diabetes have remained unchanged since 2002 and are significantly higher than diabetes-related death rates as compared to St. Louis County, state-wide, and in the national benchmarks
 - The prevalence of preventable hospitalizations in St. Louis City is 49% higher than in St. Louis County and 44% higher than Missouri as a whole
 - The prevalence of inadequate prenatal care in St. Louis City is comparable to national norms but remains significantly higher than that in St. Louis County
 - The incidence of low birth weight infants in St. Louis City has shown minimal change since 2002 and is 39% higher than the County and 51% higher than the State of Missouri
 - While declining significantly over the past five years, the prevalence of elevated lead levels among screened children is 3.5 times higher in St. Louis City as compared to national rates
 - St. Louis City remains a hotspot for sexually transmitted diseases with a reported incidence more than four-fold higher than the United States as a whole
 - The incidence of HIV infection in St. Louis City fell 33% (39 case reduction) between 2005 and 2007 but remains four times higher than that in St. Louis County

Purpose Of This Report



- To document the current status of health outcomes and access to care for the medically underserved in our community
- To highlight trends in safety net health care services that have occurred in the St. Louis region
- To serve as a point of reference for the RHC to develop future recommendations concerning the organization and financing of health care services in the region
- To guide providers, funders, and government leaders as key allocation decisions are made regarding investment in safety net health care in the St. Louis region



BACKGROUND

Mission and Role of the RHC



The mission of the St. Louis Regional Health Commission (RHC) is *to improve access to care, to reduce health disparities and to improve health outcomes in the St. Louis region.*

Roles & Strategic Priorities:

- Ensure financial sustainability of medical delivery system for uninsured/underinsured
- Create & implement a business plan to restructure safety net care in St. Louis City and County (plan submitted to CMS in October 2003)
- Foster collaborative and coordinated health care through partnership with the St. Louis Integrated Health Network and regional Behavioral Health Steering Committee
- Serve as point-of-contact for State & Federal agencies regarding health care safety net issues

St. Louis Regional Health Commission Infrastructure - 2008



The RHC is an appointed body from government, health sector, and community



Formation of RHC



The RHC was formed in 2001 in response to a crisis in health care services in St. Louis after the closure of St. Louis Regional Hospital, the last remaining public hospital in the St. Louis area.

In 2001, the health care “safety net” for low income citizens in St. Louis was:

- Fragmented, with limited coordination and collaboration between health care providers
- Difficult for patients (and providers) to navigate
- Under-funded by at least \$166 million annually
- Facing fiscal collapse, with 25% of annual funding to community health centers in jeopardy

From “Building a Healthier St. Louis” Assessment, St. Louis Regional Health Commission, 2003

Improving Access to Care - Progress to Date



Since 2001, progress has been made to improve the safety net system and increase access to care, including:

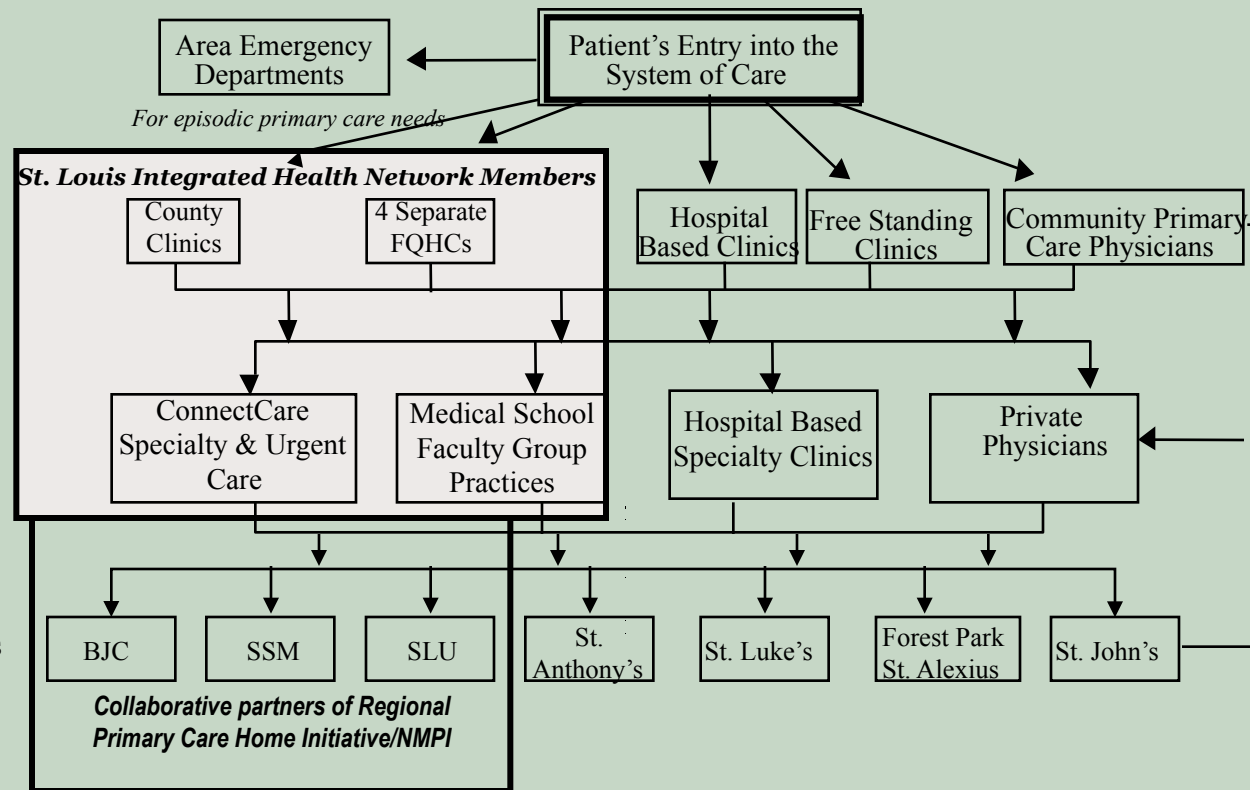
- Greater collaboration among safety net providers through the formation of the ***St. Louis Integrated Health Network (IHN)***
- Preservation of approximately \$24 million annually to avert fiscal collapse
- The successful merger of 4 primary care sites formerly managed by St. Louis ConnectCare with two Federally Qualified Health Centers (FQHCs)
- Investment of over \$20 million in improved physical plant infrastructure at regional community health centers
- The creation of a partnership between hospitals in the urban core and community health centers to connect low-income citizens with Primary Care Homes
- Integration of behavioral health providers through the Eastern Region Behavioral Health Initiative
- Improvements in referral processes to St. Louis ConnectCare which have substantially lowered appointment wait times to those seen in the private sector
- Establishment through the IHN of a regional health coaches program to assist low-income patients with system navigation and health literacy needs

Additional information can be found in "Progress toward Building A Healthier St. Louis, 2007", www.stlrhc.org

Improving the Health Care Delivery System - 2008



The Safety Net System – St. Louis City and St. Louis County, 2008



Primary Care

ConnectCare's 4 Primary Care sites transferred to 2 of the FQHCs in 2005

Specialty Care

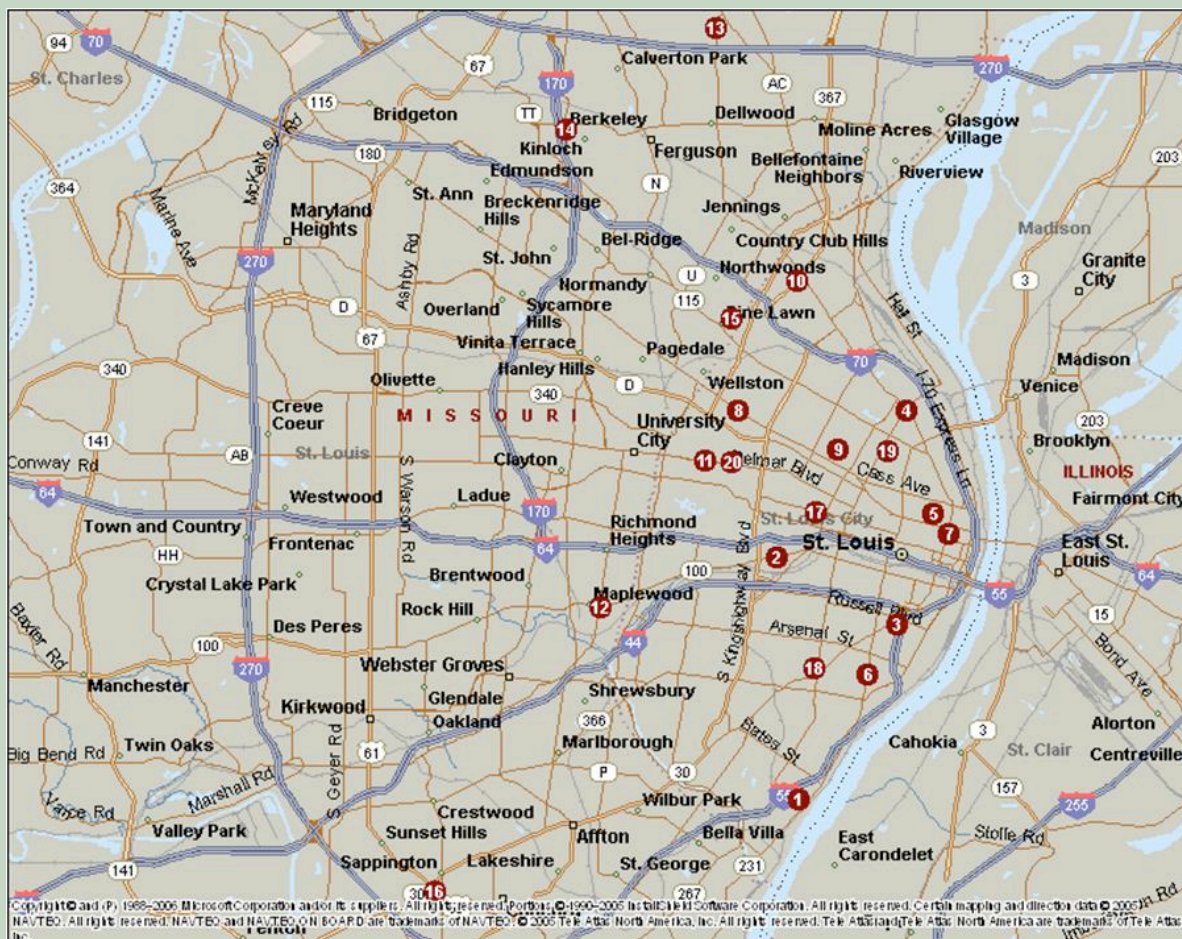
ConnectCare also provides payment for specialty care for uninsured patients

Inpatient Care

Uninsured inpatient care is paid for by the ConnectCare payment system

Some independent agreements exist between primary care providers and medical schools, hospitals or private physicians to provide inpatient or outpatient specialty care through direct referral

St. Louis City and County Community Health Centers



Family Care Health Centers

- 1- Carondelet Health Center
- 2- Forest Park Southeast Health Center

Grace Hill Neighborhood Health Centers

- 3- Souldard-Benton Health Center
- 4- Water Tower Health Center
- 5- Murphy O'Fallon Health Center
- 6- Grace Hill South Health Center
- 7- Grace Hill at St. Patrick Health Service

Myrtle Hilliard Davis Comprehensive Health Centers

- 8- Comp I Health Center
- 9- Homer G. Phillips Health Center
- 10- Florence Hill Health Center

People's Health Centers

- 11- Central Site
- 12- West Site
- 13- North Site

St. Louis County Health Centers

- 14- John C. Murphy Health Center
- 15- North Central Community Health Center
- 16- South County Health Center

- 17- Health and Dental Care for Kids
- 18- La Clinica Health Center
- 19- Community Health-in-Partnership Services

- 20- St. Louis ConnectCare

Collaborative Efforts Among Safety Net Providers



Since 2001, the collaborative work of the RHC and IHN and its members has achieved:

- Preserved \$144 million in funding not otherwise available for ambulatory health services for the uninsured
- Prevented 76,000 additional non-emergent visits to regional emergency departments each year through the preservation of access to community health center services
- Expanded primary care services for low-income residents by over 82,000 visits since 2001
- Expanded specialty care services for low-income residents by almost 25,000 visits since 2001
- Implemented initiatives to promote health literacy, facilitate continuity of care, reduce appointment wait times, and improve the patient experience
- Initiated collaborative efforts to transform access to behavioral health safety net

For more information, see "Progress Toward Building a Healthier St. Louis, 2007," pages 14-29, www.stlrhc.org

Future Challenges Threaten Access to Health Care



A fragmented and fragile group of safety net institutions has been stabilized since 2002; however, these institutions face significant challenges that may threaten the stability of the safety net without additional intervention, including:

- Mounting fiscal stress from the loss of Medicaid coverage for approximately 18,000 low-income residents in the St. Louis region since 2005
- Continued reduction in employer-sponsored coverage in Missouri at twice the national rate resulting in a 33% increase in the number of uninsured served between 2001 and 2007
- Shifting demand for services as a result of closure of hospital-based primary care services in the urban core, resulting in an additional 40,000 patient encounters per year at the remaining safety net sites
- The potential \$3 million reduction in State funding in FY09 related to declines in Federal funding for health care services



**ACCESS TO HEALTH CARE IN ST. LOUIS
2008**

Uninsured and Medicaid Population



Change in Total Safety Net Population in St. Louis City and County, 2002-2007

| | <u>2002</u> | <u>2007</u> | <u>Change</u> |
|---|-------------|-------------|---------------|
| Total Safety Net Population (Medicaid and Uninsured) | 307,000 | 315,000 | +8,000 |

Change Within Safety Net Population in St. Louis City and County, 2002-2007

| | <u>2002</u> | <u>2007</u> | <u>Change</u> |
|-----------|-------------|-------------|---------------|
| Medicaid | 178,000 | 162,000 | -16,000 |
| Uninsured | 129,000 | 153,000* | +24,000 |

*The number of uninsured in 2007 was estimated based upon statewide data from the 2002 and 2007 Current Population Surveys and the 2002 estimate of the St. Louis uninsured. The number of uninsured in 2002 was estimated based upon the 2002 Current Population Survey and other U.S. Census Bureau data; see 2003 report for methodology.

Medicaid data as of December 2007 provided by MO HealthNet.

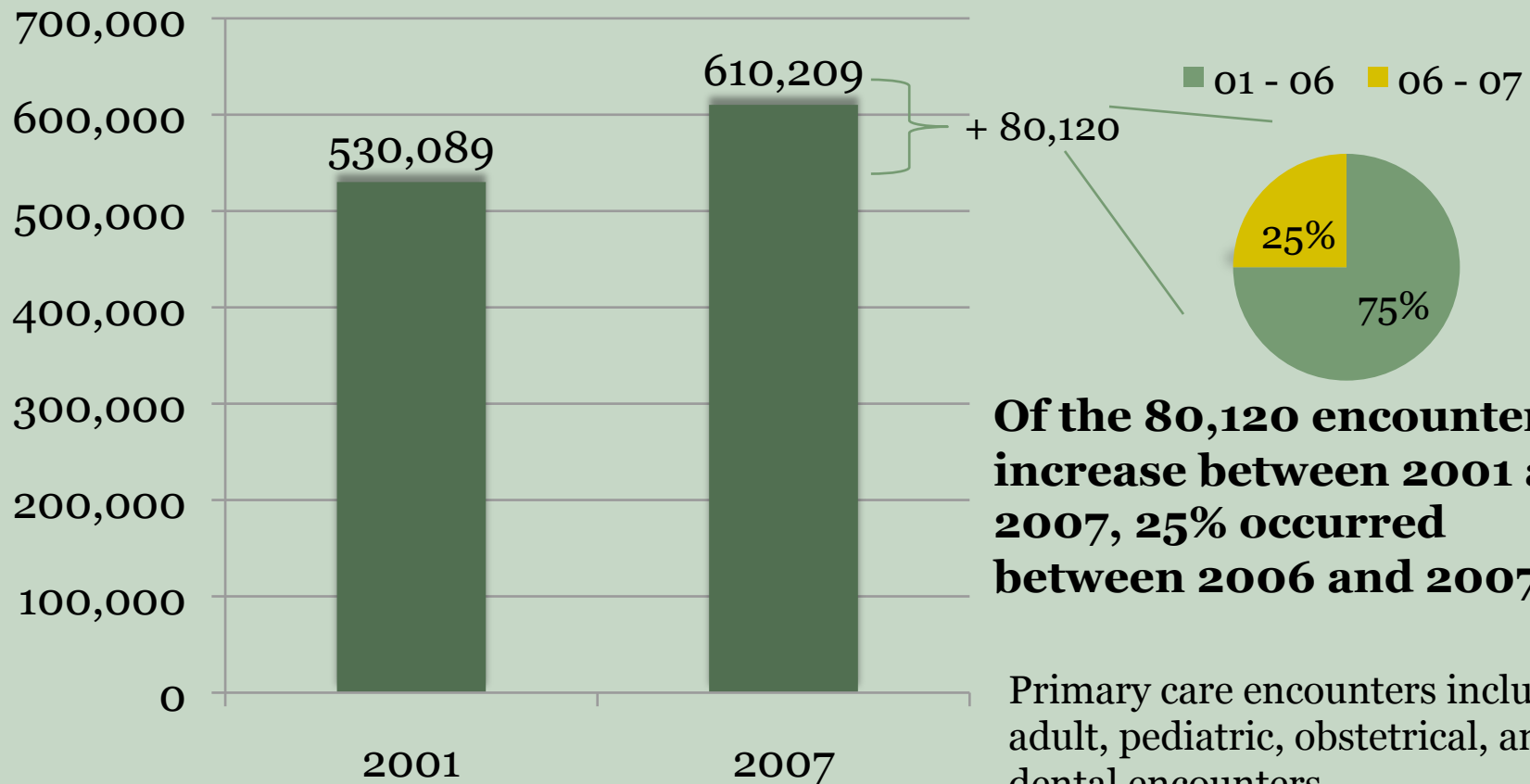


PRIMARY CARE

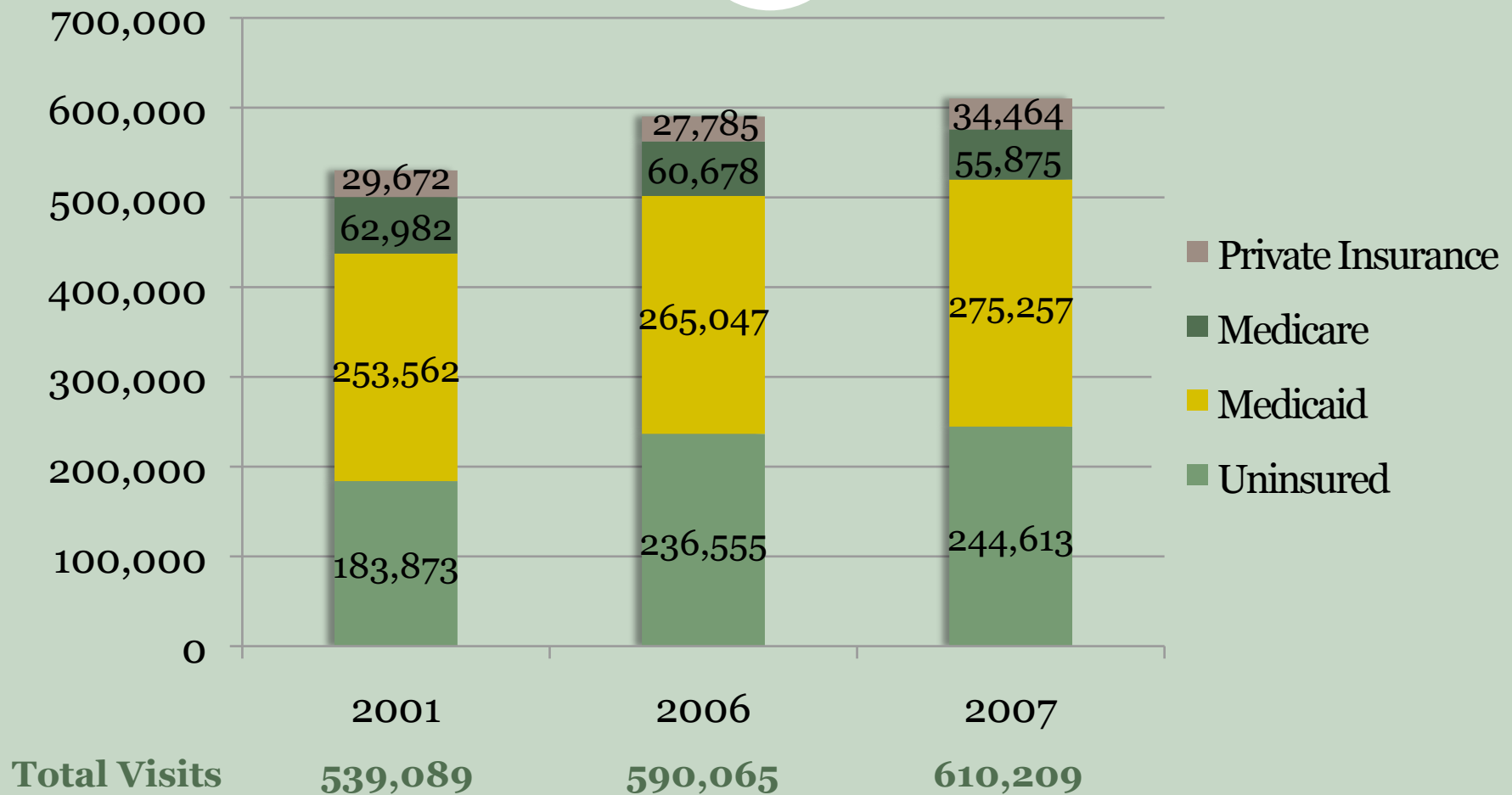
Safety Net Primary Care Providers Continue to Increase Patient Encounters in 2007



Primary Care Encounters, 2001 and 2007



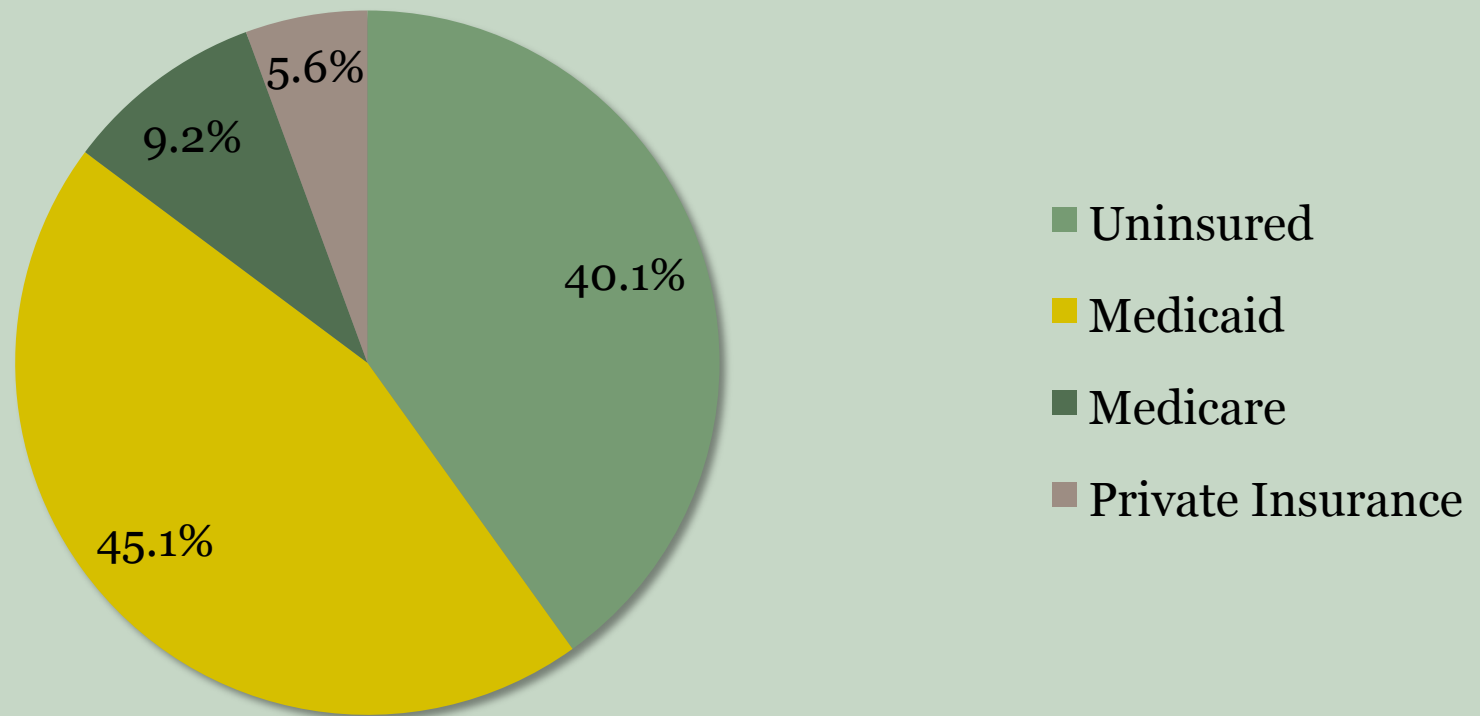
Primary Care Safety Net Providers Continue to Absorb Additional Uninsured and Medicaid Volumes



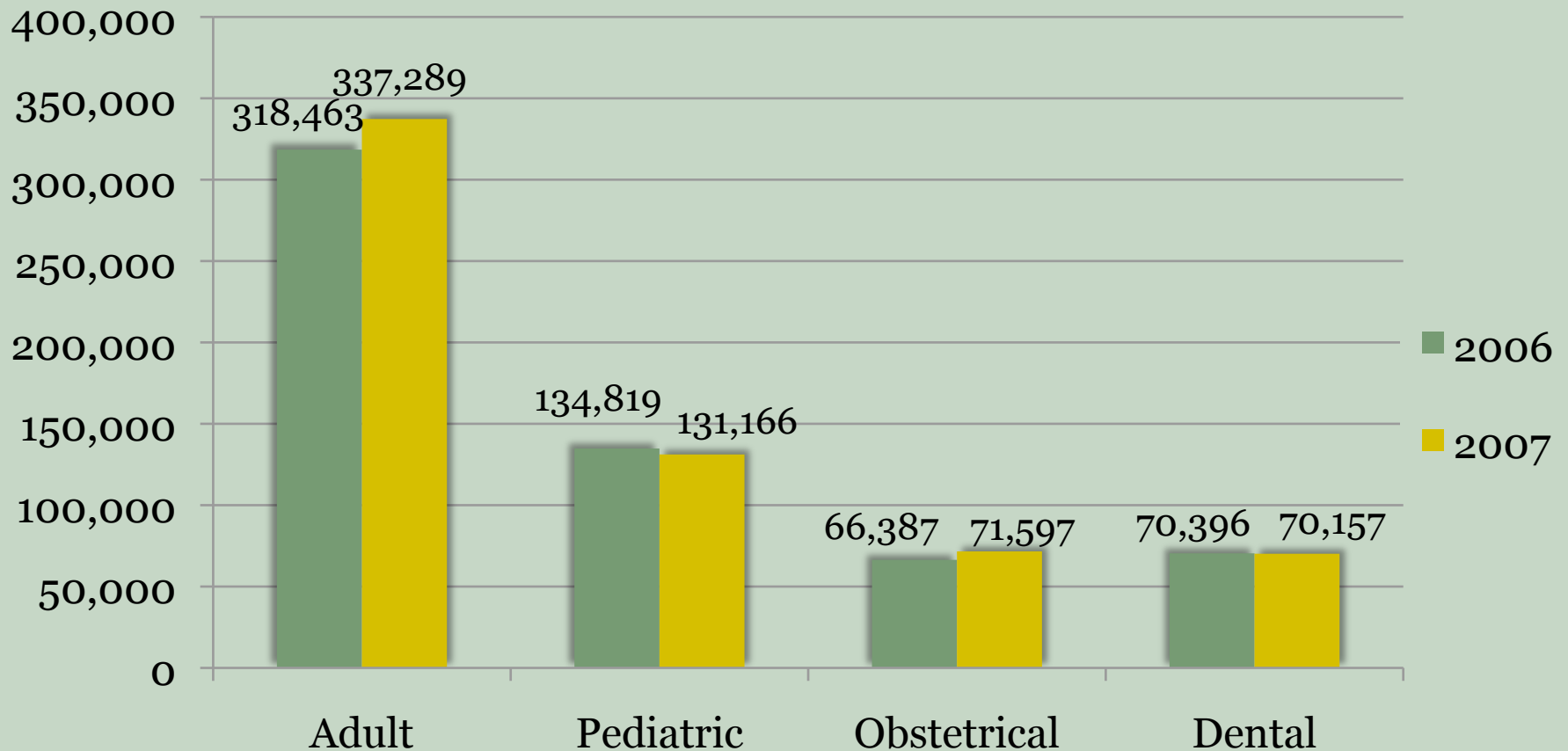
Uninsured & Medicaid Patients Comprise 85% of the Total Volume at Primary Care Safety Net Sites



Safety Net Primary Care Encounters by Payor, 2007



Adult Encounters Increased in 2007 while Pediatric, Obstetrical, and Dental Volumes Remained Steady

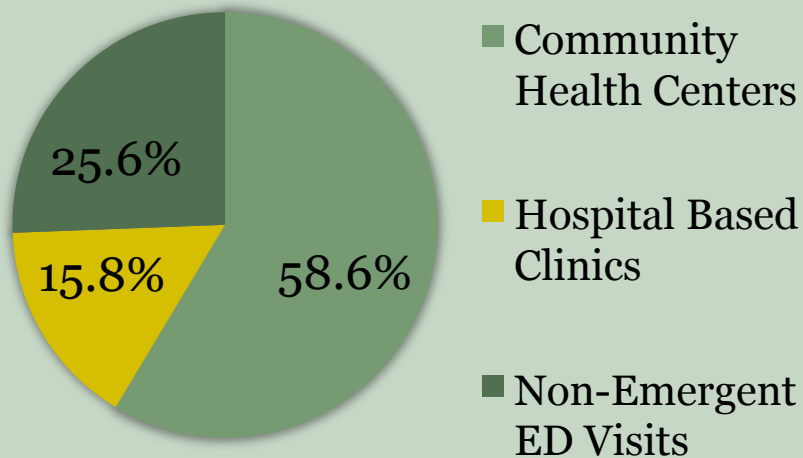


Community Health Centers Increased Share of Uninsured and Medicaid Primary Care Market in 2007

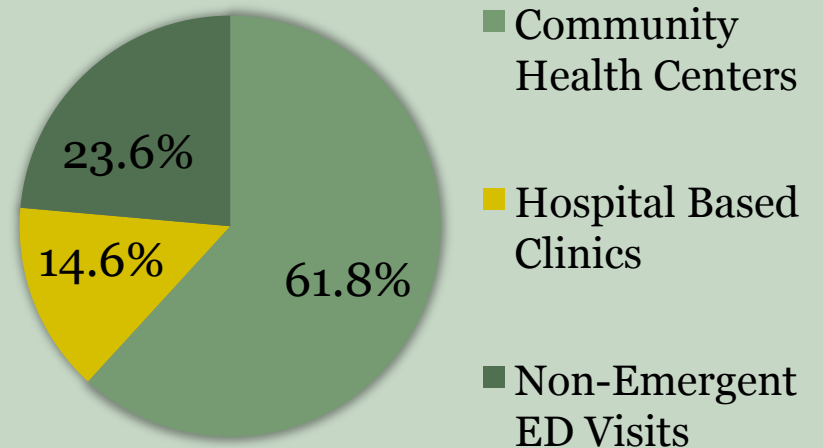


Two Trends Continued in 2007: Increased utilization of community health centers for primary care needs and decreased utilization of hospital emergency rooms for non-emergent reasons

Encounters by Site Category, 2006



Encounters by Site Category, 2007



Primary Care Appointment Wait Times Remained Steady while Dental Access Remained Challenged



With the exception of dental care, primary care appointment wait times remained steady in 2008 as compared to 2007 and are comparable to the private sector

Sites Reporting Non-Urgent Appointments Available within 14 Days of Request

| | | Adult | Pediatric | Obstetrical | Dental |
|--------------|------|-------------|-------------|--------------|-------------|
| New Visit | 2002 | 25/29 (86%) | 22/26 (85%) | 25/27 (93%) | 7/22 (32%) |
| | 2007 | 15/21 (71%) | 15/20 (75%) | 10/18 (56%) | 4/17 (24%) |
| | 2008 | 16/22 (73%) | 14/20 (70%) | 15/18 (83%) | 4/17 (24%) |
| Return Visit | 2002 | 26/29 (89%) | 25/26 (96%) | 27/27 (100%) | 6/22 (27%) |
| | 2007 | 19/21 (90%) | 18/20 (90%) | 17/18 (94%) | 4/17 (24%) |
| | 2008 | 19/22 (86%) | 19/20 (95%) | 18/18 (100%) | 15/17 (88%) |

In 2008, 26 primary care sites provided data regarding appointment availability. Of these, 22 provide adult care, 20 provide pediatric care, 18 provide obstetrical care, and 17 provide dental care.

Primary Care Physical Plant Capacity



Physical Plant Capacity at Primary Care Sites, 2001 and 2007

| Primary Care Exam Rooms | | Dental Chairs | |
|-------------------------|------|---------------|------|
| 2001 | 2007 | 2001 | 2007 |
| 477 | 444 | 64 | 71 |

Patient Visits per Exam Room per Day, 2001 and 2007

| 2001 | 2007 |
|---|---|
| 4.2 | 5.1 |
| 4.2 = 479,251 primary care ambulatory encounters (excluding dental) / 444 patient exam rooms / 240 days | 5.1 = 540,052 primary care ambulatory encounters (excluding dental) / 444 patient exam rooms / 240 days |

A typical physician's office would see at least 8 patients per exam room per day, as reported in the 2003 report "Building a Healthier St. Louis."

Expanded Weekend and After Hours Primary Care Access Continues to be Available

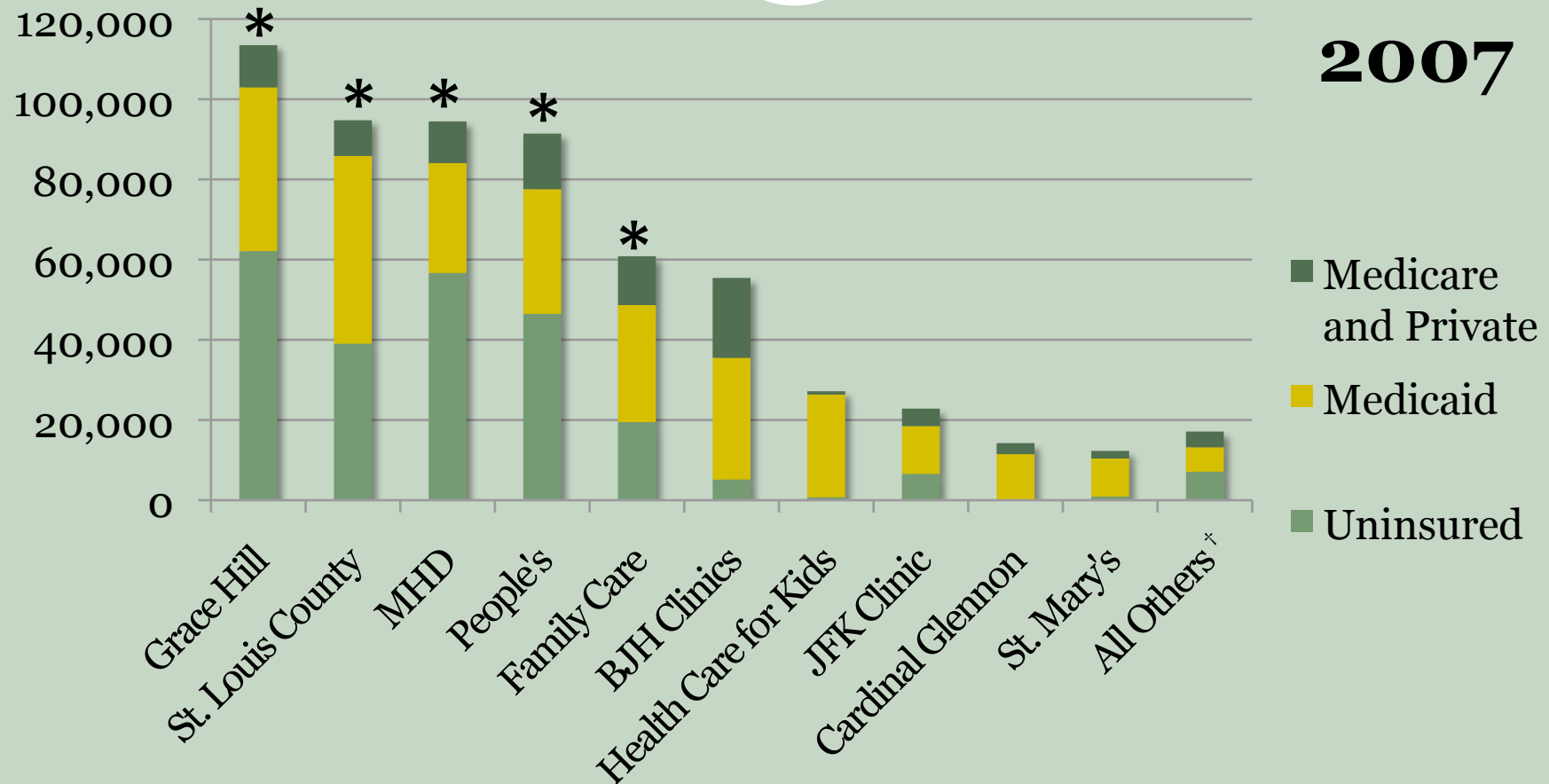


| | | 2007 | 2008 |
|---------|-----------|--|--|
| Evening | Monday | 3 sites (2 until 6:30 PM, 1 until 9 PM) | 3 sites (1 until 7 PM, 1 until 8:30 PM, 1 until 9 PM) |
| | Tuesday | 8 sites (2 until 6:30 PM, 1 until 7 PM, 1 until 8:30 PM, 1 until 9 PM, 1 until 10 PM) | 7 sites (1 until 6 PM, 1 until 7 PM, 3 until 8 PM, 1 until 8:30 PM, 1 until 9 PM) |
| | Wednesday | 8 sites (5 until 7 PM, 2 until 8:30 PM, 1 until 9 PM, 1 until 10 PM) | 8 sites (1 until 6 PM, 4 until 7 PM, 1 until 8 PM, 1 until 8:30 PM, 1 until 9 PM) |
| | Thursday | 3 sites (1 until 8 PM, 1 until 8:30 PM, 1 until 9 PM, 1 until 10 PM) | 6 sites (1 until 6 PM, 2 until 8 PM, 2 until 8:30 PM, 1 until 9 PM) |
| | Friday | 1 site (1 until 9 PM) | 1 site (1 until 9 PM) |
| Weekend | Saturday | 7 sites (1 full-day, 6 half-day) | 5 sites (2 full-day, 3 half-day) |
| | Sunday | 1 site (1 half-day) | 1 site (1 half-day) |

Five Community Health Centers Serve the Primary Care Needs for over 90% of the Uninsured in the St. Louis Region



2007



[†] "All Others" includes volumes from St. Luke's Pediatric Center, Crider Center, La Clinica, and Community Health in Partnership Services (CHIPS).

Uninsured and Medicaid Primary Care Volumes Continue to Grow Rapidly at Regional Safety Net Providers



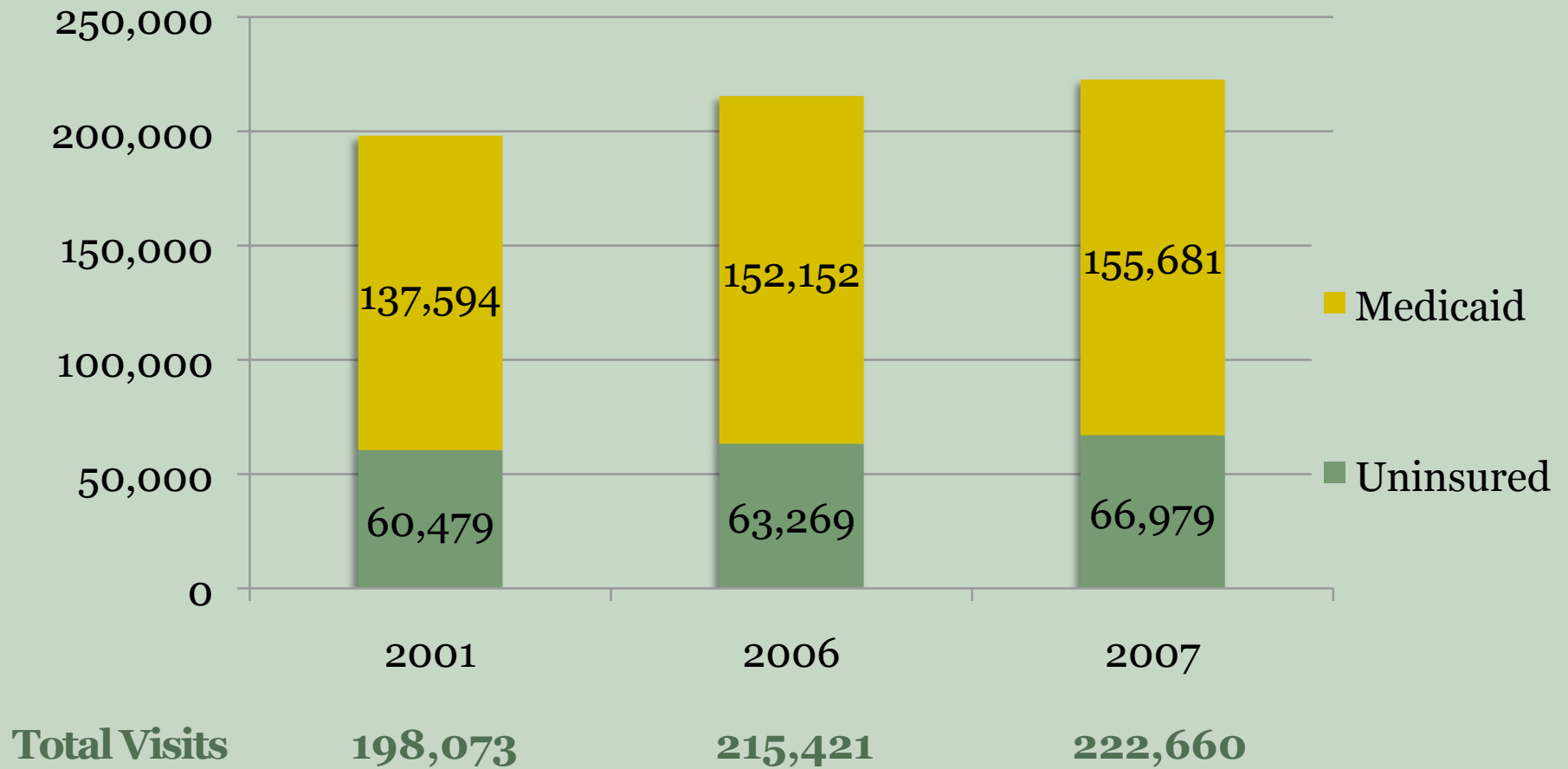
| | 2001 | 2006 | 2007 | 01 to 07 | 06 to 07 |
|----------------------|---------|---------|---------|-----------------|-----------------|
| Total | 530,089 | 590,065 | 610,209 | +80,120 (15.1%) | +20,144 (3.4%) |
| Uninsured & Medicaid | 437,435 | 501,602 | 519,870 | +82,435 (18.8%) | +18,268 (3.6%) |
| Uninsured | 183,873 | 236,555 | 244,613 | +60,740 (33.0%) | +8,058 (3.4%) |
| Medicaid | 253,562 | 265,047 | 275,257 | +21,695 (8.6%) | +10,210 (3.9%) |
| Medicare | 62,982 | 60,678 | 55,875 | -7,107 (-11.3%) | - 4,803 (-7.9%) |
| Private Insurance | 29,672 | 27,785 | 34,464 | +4,792 (16.1%) | +6,679 (24.0%) |
| | 2001 | 2006 | 2007 | 01 to 07 | 06 to 07 |
| Total | 530,089 | 590,065 | 610,209 | +80,120 (15.1%) | +20,144 (3.4%) |
| Adult | 272,477 | 318,463 | 337,289 | +64,812 (23.8%) | +18,826 (5.9%) |
| Pediatric | 132,309 | 134,819 | 131,166 | -1,143 (-0.9%) | -3,653 (-2.7%) |
| Obstetrical | 74,465 | 66,387 | 71,597 | - 2,868 (-3.9%) | +5,210 (7.8%) |
| Dental | 50,838 | 70,396 | 70,157 | +19,319 (38.0%) | -239 (-0.3%) |



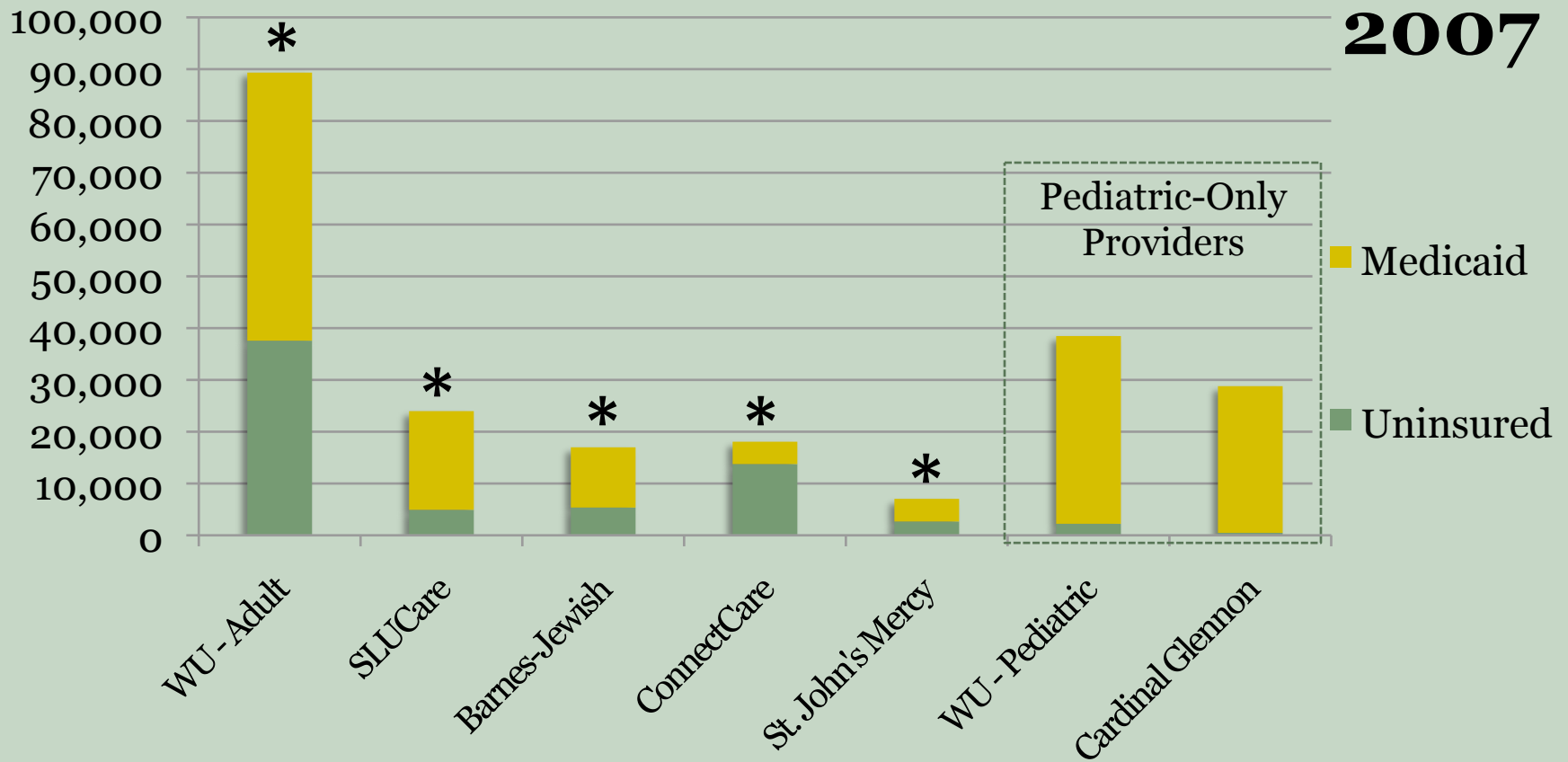
SPECIALTY CARE

Safety Net Specialty Care Volumes

Medicaid and Uninsured Visits Continue to Increase



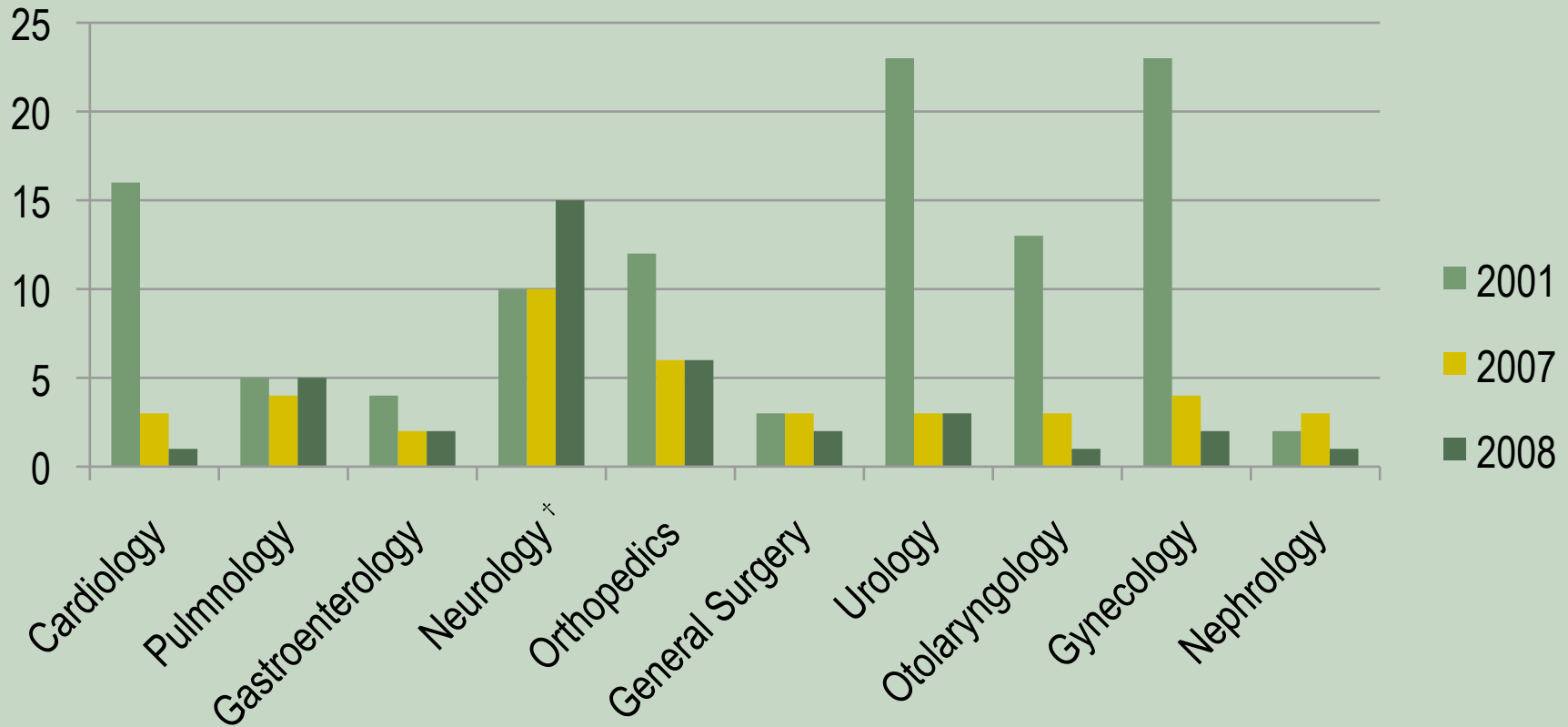
Five Institutions Serve the Specialty Care Needs for over 95% of the Uninsured in the St. Louis Region



Reduction in Specialty Care Wait Times at St. Louis ConnectCare is Sustained in 2008



Next Available Appointment in Weeks for New, Non-Urgent Patients at ConnectCare



[†] Openings available for urgent neurology appointments within 4 days of referring physician request.

Uninsured and Medicaid Specialty Care Volumes Continue to Increase

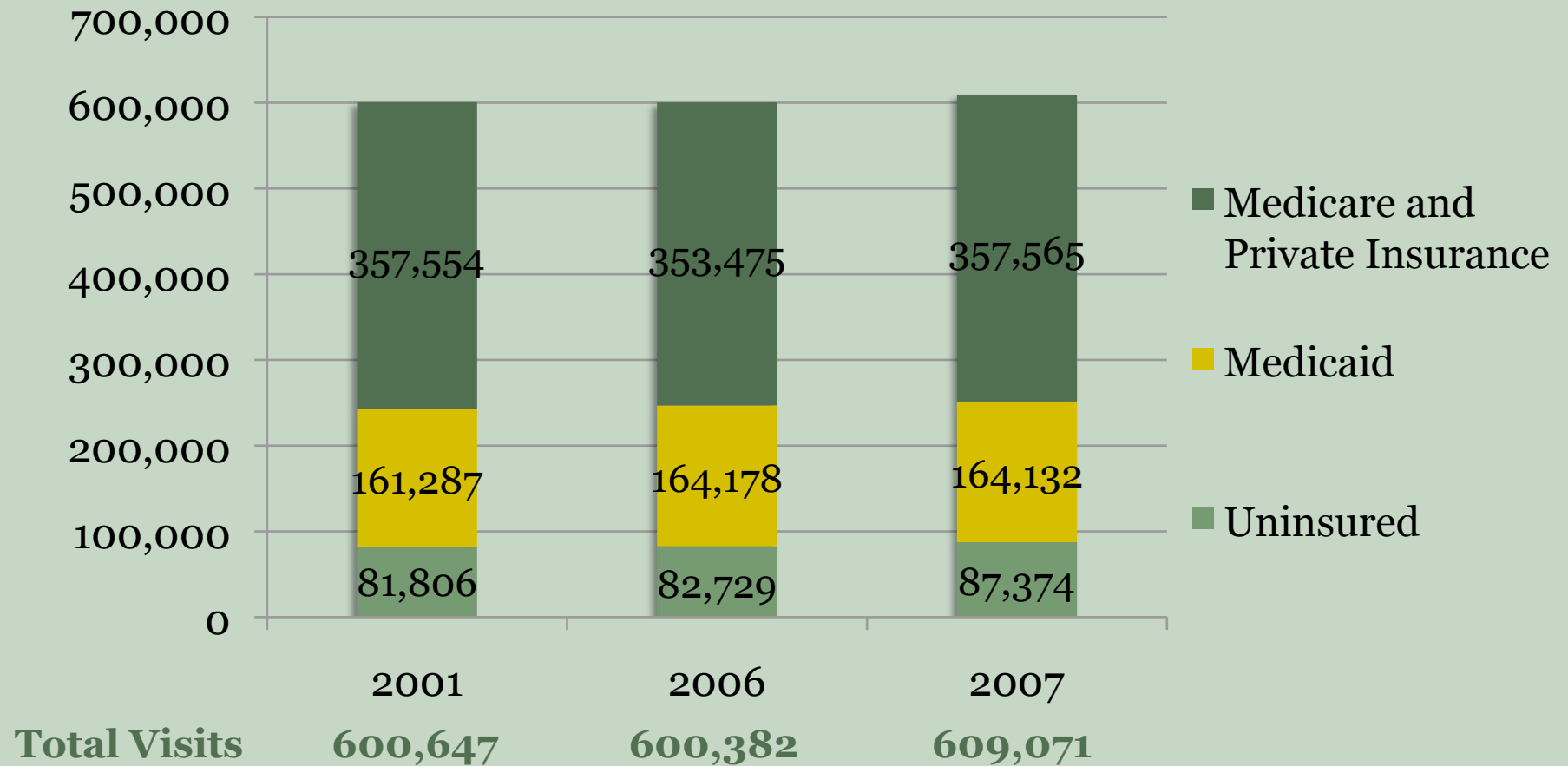


| | 2001 | 2006 | 2007 | 01 to 07 | 06 to 07 |
|----------------------|---------|---------|---------|------------------|----------------|
| Total | 716,271 | 956,434 | 993,726 | +277,455 (38.7%) | +37,292 (3.9%) |
| Uninsured & Medicaid | 198,073 | 215,421 | 222,660 | +24,587 (12.4%) | +7,239 (3.4%) |
| Uninsured | 60,479 | 63,269 | 66,979 | +6,500 (10.7%) | +3,710 (5.9%) |
| Medicaid | 137,594 | 152,152 | 155,681 | +18,087 (13.1%) | +3,529 (2.3%) |
| Medicare | 178,954 | 270,188 | 282,453 | +103,499 (57.8%) | +12,265 (4.5%) |
| Private Insurance | 339,244 | 470,825 | 488,613 | +149,369 (44.0%) | +17,788 (3.8%) |
| Pediatric | 149,838 | 168,592 | 173,296 | +23,458 (15.7%) | +4,704 (2.8%) |



EMERGENCY CARE

Emergency Department Visits Remain Stable in 2007 With Limited Growth in Uninsured & Medicaid Visits



Left Without Being Seen Rates Declined at Area Hospitals in 2007



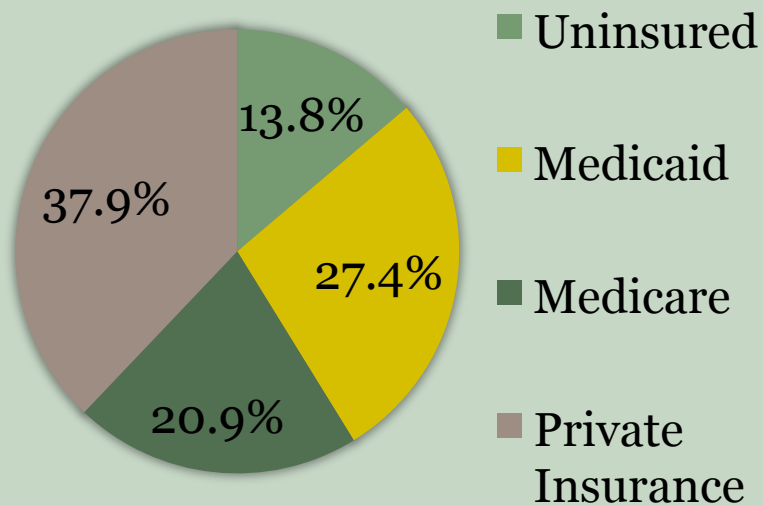
- In 2007 across the St. Louis region, over 22,700 patients left hospital emergency departments without being seen—a 5.5% reduction in the left without being seen (LWBS) rate from 2006. Often, patients choose to leave emergency departments without treatment because of wait times.
- The 22,700 patients who left without being seen represent 3.7% of all patients seeking emergency care services in the region.
- LWBS rates vary widely by provider and geographic location:
 - The four hospitals reporting LWBS rates above 6% include: Barnes-Jewish Hospital (7.1%), St. Anthony's Medical Center (6.4%), St. Louis Children's Hospital (6.2%), and St. Mary's Medical Center (6.1%). Three of these hospitals are located in or near the St. Louis City limits.
 - The three hospitals reporting LWBS rates below 1% include: St. Luke's Hospital (0.9%), Missouri Baptist Medical Center (0.8%), and St. John's Mercy Medical Center (0.3%). These three hospitals are located in West St. Louis County.

Emergency Department Payor Mix Remains Unchanged

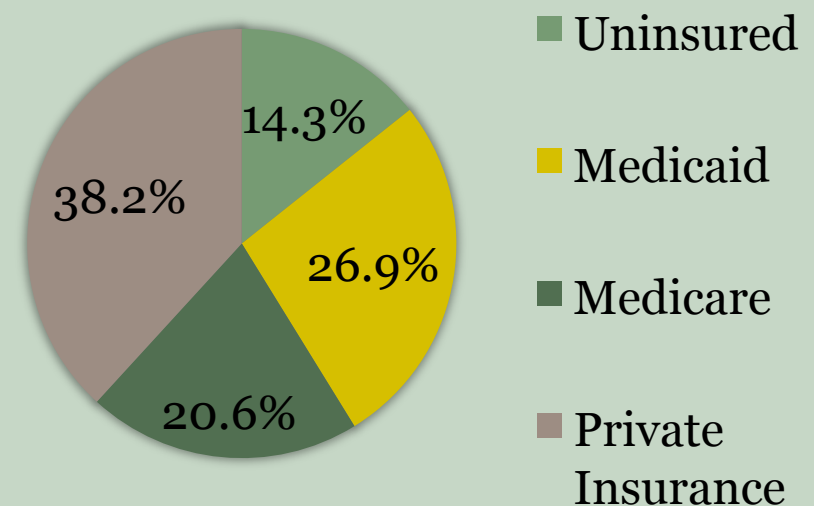


The percentage of uninsured and Medicaid ED visits has remained constant over the past 12 months.

Visits by Payor, 2006



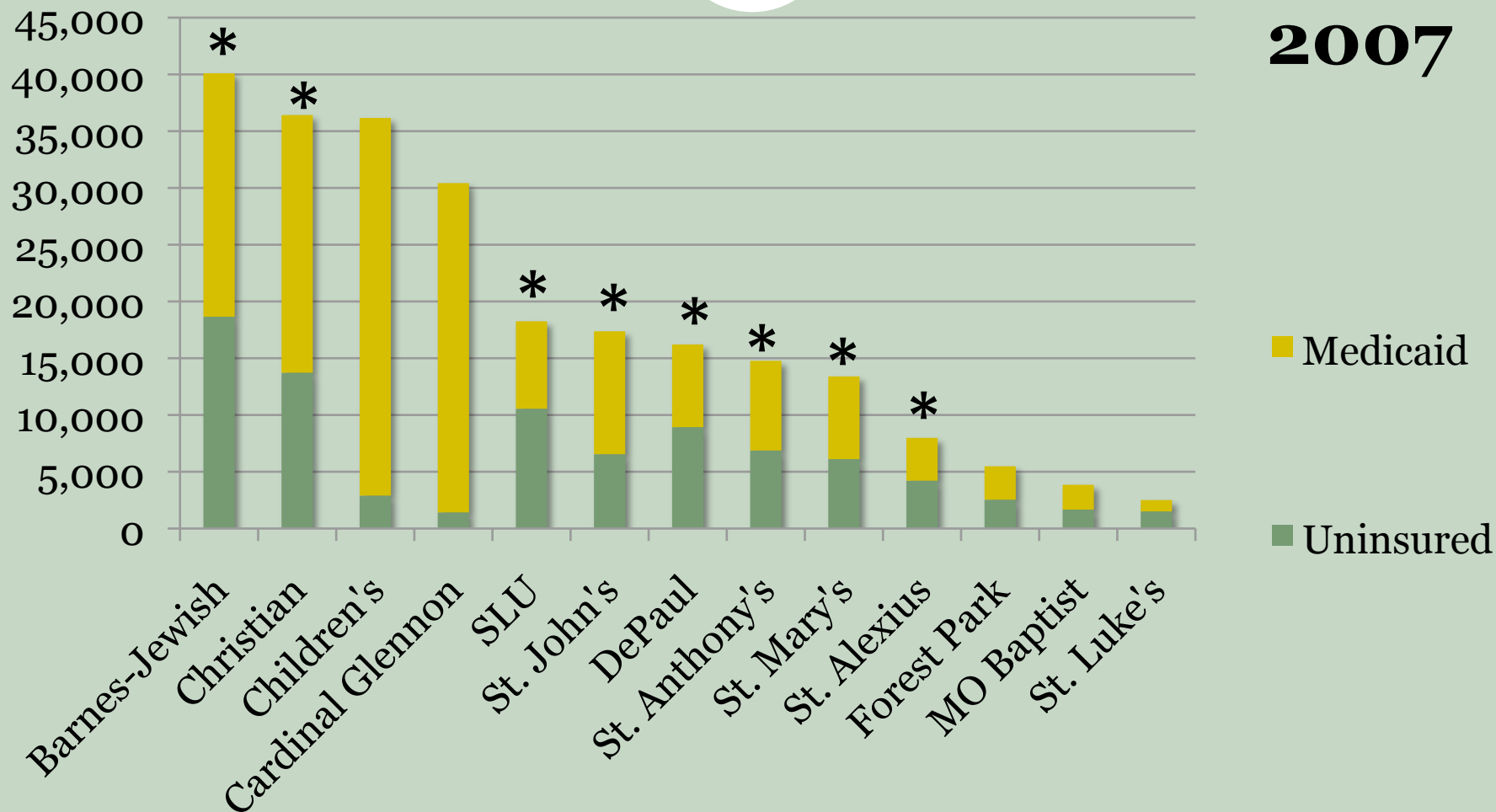
Visits by Payor, 2007



Eight Emergency Departments see 90% of the Uninsured in the St. Louis Region



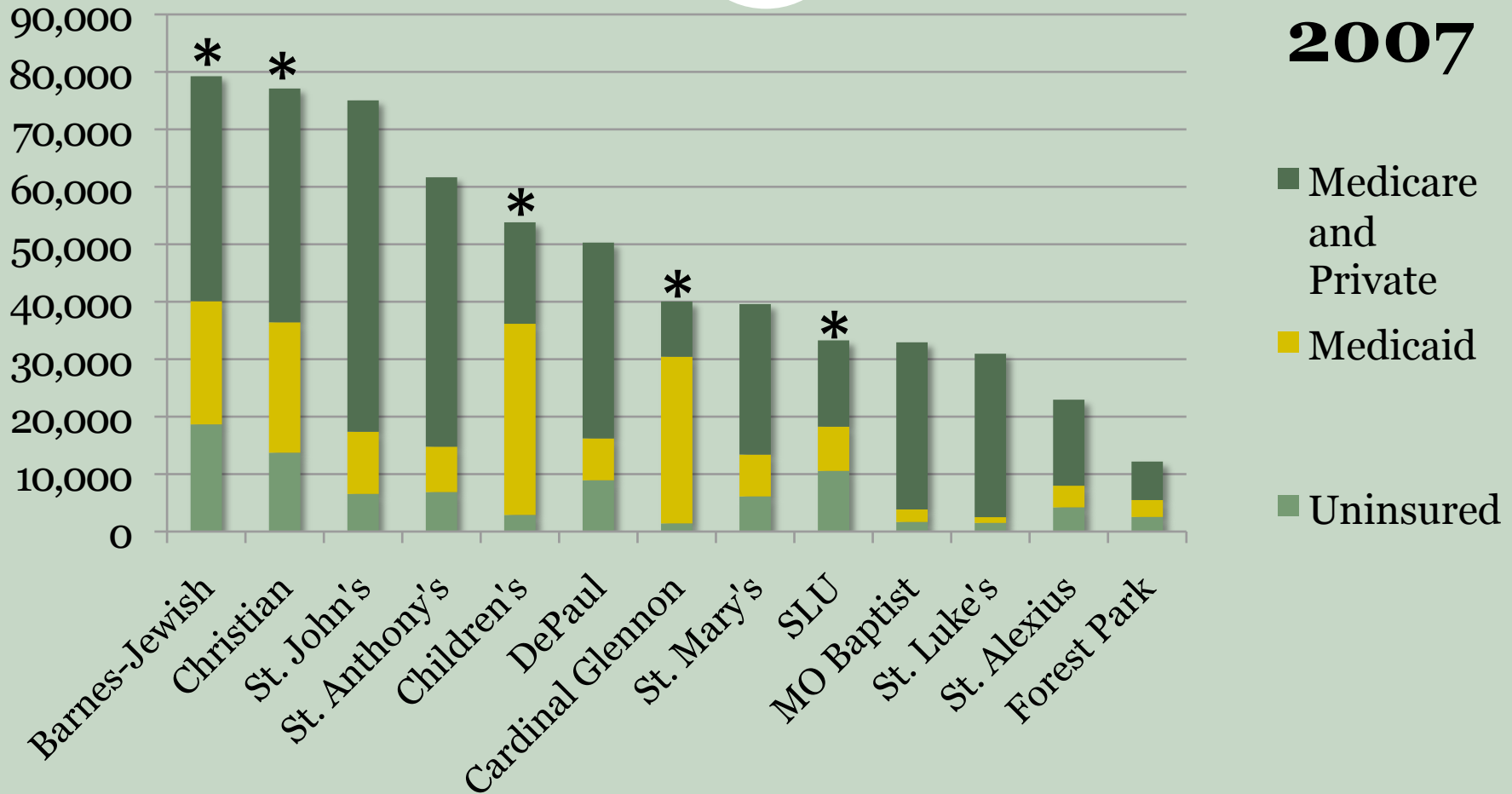
2007



5 EDs Provide 50% or More of their Services to Uninsured and Medicaid Patients*



2007

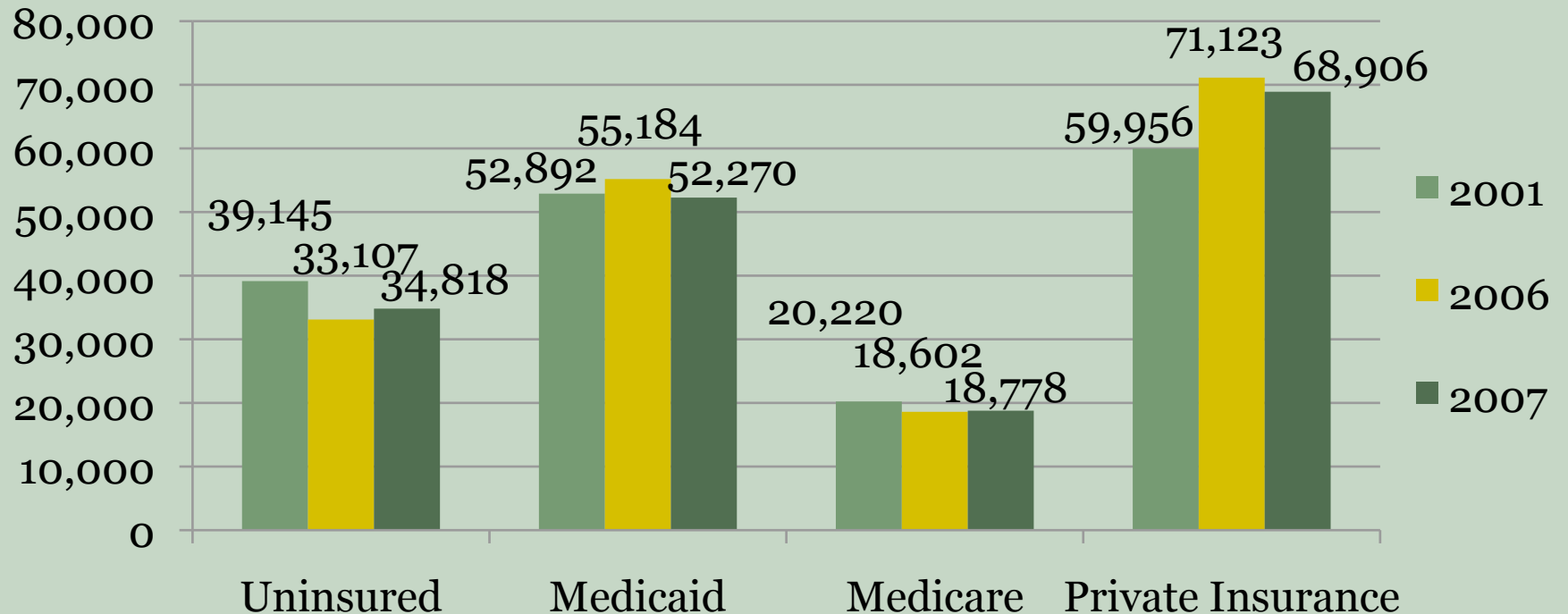


* EDs that provide 50% or more of their services to uninsured and Medicaid patients.

Non-Emergent ED Usage



It is estimated that total non-emergent visits remained relatively constant between 2006 and 2007. The percentage of uninsured and Medicaid non-emergent ED visits also remained relatively constant between 2006 and 2007.



Total ED Volumes Remained Relatively Flat in 2007 Compared to 2006



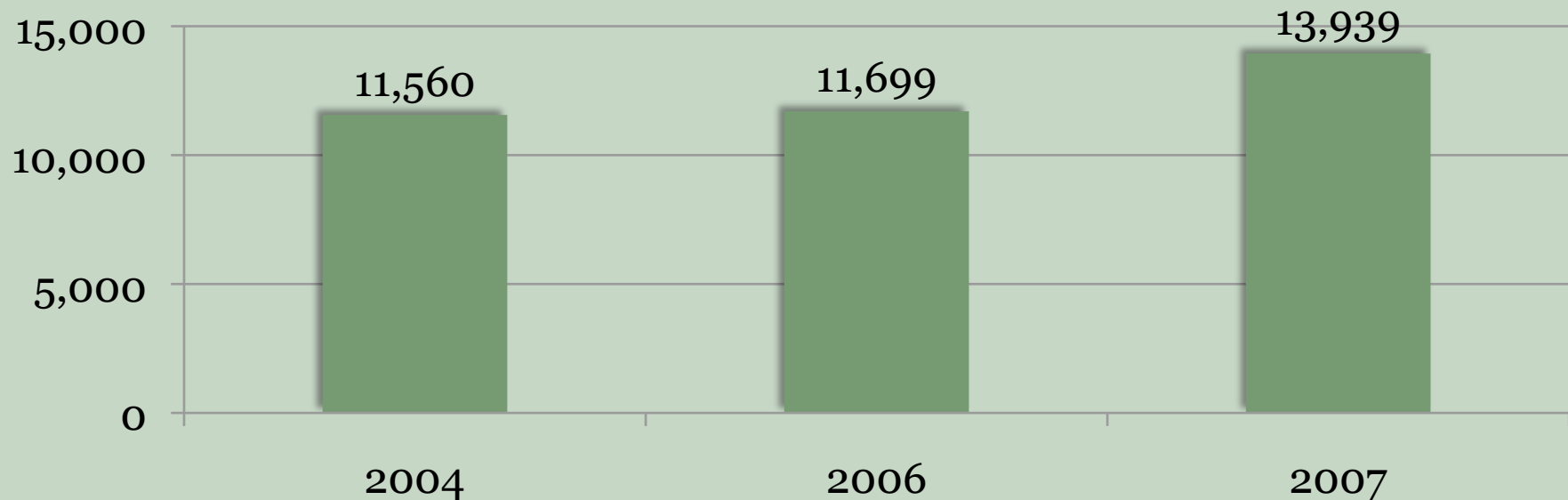
| | 2001 | 2006 | 2007 | 01 to 07 | 06 to 07 |
|----------------------|---------|---------|---------|----------------|---------------|
| TOTAL | 600,647 | 600,382 | 609,071 | +8,424 (1.4%) | +8,689 (1.4%) |
| Uninsured & Medicaid | 243,093 | 246,907 | 251,506 | +8,413 (3.5%) | +4,599 (1.9%) |
| Uninsured | 81,806 | 82,729 | 87,374 | +5,568 (6.8%) | +4,645 (5.6%) |
| Medicaid | 161,287 | 164,178 | 164,132 | +2,845 (1.8%) | - 46 (0.0%) |
| Medicare | 119,325 | 125,718 | 125,209 | +5,884 (4.9%) | - 509 (-0.4%) |
| Private Insurance | 238,229 | 227,757 | 232,356 | -5,873 (-2.5%) | +4,599 (2.0%) |

Urgent Care Volumes at St. Louis ConnectCare Continue to Rise



In 2007, over 62% of the patients utilizing ConnectCare's urgent care center were uninsured - this is the only urgent care center within St. Louis' area of highest need dedicated to serving all regardless of the ability to pay. ConnectCare's urgent care facility offers the added advantage of providing non-emergent care in a more appropriate, lower cost setting as compared to hospital emergency departments.

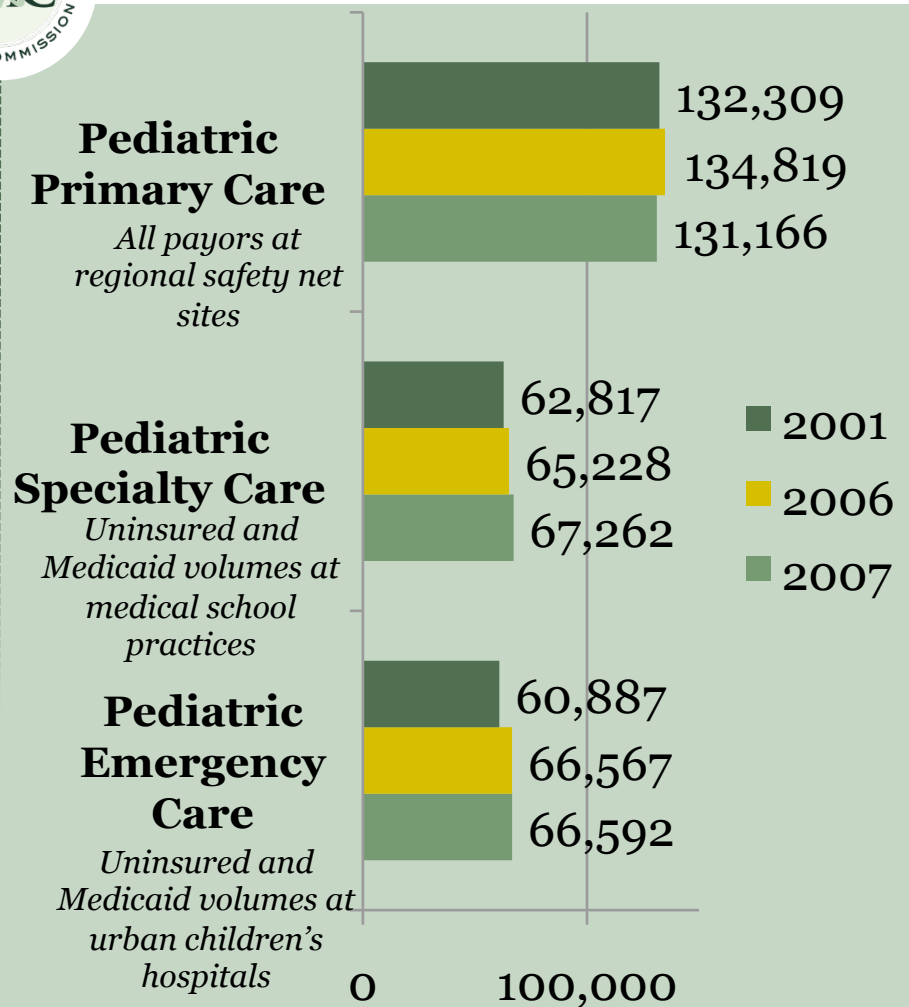
Encounters at Smiley Urgent Care Center



Safety Net Pediatric Care Volumes



- Between 2001 and 2007, the population under age 18 in St. Louis City and County decreased by 4.8%
- In 2007, pediatric volumes accounted for 28% of all primary care encounters (excluding dental) to regional safety net providers
- In 2007, pediatric volumes accounted for 30% of uninsured and Medicaid specialty care encounters to regional medical school practices
- It should be noted that many underserved children have difficulty acquiring health insurance coverage once they transition to adulthood. This barrier is attributable to more restrictive Medicaid eligibility requirements for those over 19, frequent ineligibility for family coverage due to age, and limited income to purchase private insurance. Additionally, adult providers are typically less willing to accept Medicaid coverage than pediatric providers. These transitional factors are particularly concerning for individuals with chronic conditions or special needs.



Survey Respondents



Primary Care

| | | |
|--|--|-------------------------------|
| Family Care Health Centers | Barnes-Jewish Hospital OB/GYN Clinic | Glennon Care at DePaul |
| Grace Hill Neighborhood Health Centers | Barnes-Jewish Hospital Medicine Clinic | La Clinica |
| Myrtle Hilliard Davis Comprehensive Health Ctrs. | St. John's Mercy JFK Clinic | Health Care for Kids |
| People's Health Centers | St. Luke's Pediatric Clinic | Institute for Family Medicine |
| St. Louis County Health Centers | Crider Center | |
| St. Mary's Health Center | Cardinal Glennon University Pediatrics | |

Specialty Care

| | | |
|-----------------------|--------------------------------|--|
| St. Louis ConnectCare | SLUCare | Cardinal Glennon Children's Medical Center |
| Washington University | Barnes-Jewish Hospital Clinics | St. John's Mercy Medical Center |

Emergency Departments

| | | |
|---------------------------------|--|---------------------------------|
| Barnes-Jewish Hospital | St. Mary's Medical Center | St. Luke's Hospital |
| Christian Hospital (NE & NW) | DePaul Hospital | St. John's Mercy Medical Center |
| Missouri Baptist Medical Center | Cardinal Glennon Children's Medical Center | St. Anthony's Medical Center |
| St. Louis Children's Hospital | St. Louis University Hospital | |



**HEALTH OUTCOMES IN ST. LOUIS
FOR SELECTED INDICATORS
2008**

Racial Disparities in Health Outcomes



- As detailed in the RHC's 2003 Report "Building a Healthier St. Louis" and subsequent reports by the health departments in the region, there are significant disparities in health outcomes between various geographic areas in our region, and between African Americans and whites, in both St. Louis City and Saint Louis County.
- The 2003 RHC report found that disparities are greatest for birth-related indicators such as lack of early prenatal care and low infant birth weight. Lack of early prenatal care carries a greater risk for prematurity and low birth weight. Premature and low birth weight infants are at substantially higher risk for long-term mental and physical disabilities as well as early death.
- As discussed in the 2003 RHC report, the areas of greatest disparity between African Americans and whites in our region are: teen births, low birth weight, lack of first-trimester prenatal care, homicide, tuberculosis, prostate cancer mortality, and diabetes mortality.
- Despite our region's progress in improving access to health care services in our region since 2002, the cause of these disparities are deep-rooted and systemic and cannot be addressed solely by improvements to our health care safety net. Interventions aimed at reducing health disparities must recognize that health status and health outcomes may be influenced by a myriad of factors, including but not limited simply to access to medical care.

Racial Disparities in Health Outcomes



The City of St. Louis Department of Health released an update to its “Understanding Our Needs” assessment in the summer of 2007. As detailed in the “Understanding Our Needs” report, many racial disparities in health outcomes still exist in St. Louis. Disparities found in the health indicators analyzed in this 2008 RHC report include:

- The rate of inadequate prenatal care is 2.7 times greater for African Americans than whites in St. Louis City
- The rate of low birth weight (LBW) infants among African Americans in St. Louis City is 1.9 times higher than the rate of LBW infants among whites in St. Louis City
- The infant mortality rate among St. Louis City African Americans is 2.8 times greater than the rate among City whites
- HIV prevalence among African Americans in St. Louis City is 1.5 times greater than prevalence among City whites
- The prevalence of lead poisoning among screened children is 1.2 times greater among African American children living in St. Louis City than white children living in St. Louis City
- The diabetes mortality rate among St. Louis City African American residents is 1.9 times the diabetes mortality rate among St. Louis City white residents.

This information and additional detail on racial disparities and health indicators is available through the City of St. Louis Department of Health’s website at <http://stlouis.missouri.org/citygov/health/reportsuon.html>

Selected Health Outcomes – 2002-2006



The following indicators were analyzed for St. Louis City and County to identify potential trends in health outcomes in our community since the RHC's 2003 report:

- Heart Disease Mortality
- Diabetes Mortality
- Preventable Hospitalizations
- Births with Inadequate Prenatal Care
- Low Birth Weight Infants
- Infant Mortality
- Elevated Lead Levels among Children under Age 6
- Sexually Transmitted Diseases
- HIV Infection Incidence
- Suicide Rates

The above indicators were selected in 2003 for periodic public reporting by the RHC's Measurement Workgroup after extensive dialogue and community input. Please see "Recommendations for Improving the St. Louis Region's Health Care Safety Net System" issued by the RHC in October 2003, available at www.stlrhc.org for more information concerning the methodology for selecting the reported indicators.



Heart disease is the number one cause of death in the St. Louis region.

Heart disease mortality in the St. Louis area fell 12.7% from 2002 to 2005 with a continued downward trend in 2006.

While these trends are favorable, heart disease mortality rates in St. Louis City and St. Louis County are significantly higher than national benchmarks.

Heart Disease Mortality

| | 2002 (Crude Rates per 100K) | 2005 (Crude Rates per 100K) | 2006 (Crude Rates per 100K) | Percent Change (05 to 06) |
|---------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------|
| St. Louis City | 341.5 | 292.4 | 285.2 | -2.5% |
| St. Louis County | 306.6 | 269.6 | 268.2 | -0.5% |
| St. Louis City and County | 315.5 | 275.6 | 272.5 | -1.1% |
| Missouri | 291.7 | 255.5 | 250.7 | -1.9% |
| United States | 242.0 (2002) | 220.0 (2005) | Data not available | Data not available |



There are two types of diabetes: Type 1 most often appears during childhood or adolescence; Type 2 typically begins in adulthood and accounts for >95% of all cases of diabetes cases. Type 2 diabetes is linked to obesity and inactivity.

Diabetes mortality rates in St. Louis City have remained unchanged since 2002 and are significantly higher than diabetes-related death rates in the County, State of Missouri, and nation as a whole.

Diabetes Mortality

| | 2002 (Crude Rates per 100K) | 2005 (Crude Rates per 100K) | 2006 (Crude Rates per 100K) | Percent Change (05 to 06) |
|---------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------|
| St. Louis City | 37.0 | 36.9 | 37.4 | +1.4% |
| St. Louis County | 26.6 | 25.4 | 23.5 | -7.5% |
| St. Louis City and County | 29.3 | 28.3 | 27.1 | -4.2% |
| Missouri | 28.4 | 26.7 | 25.5 | -4.5% |
| United States | 75 (2000) | 25.3 (2005) | Data not available | Data not available |



Studies have shown that inpatient hospitalizations for certain health conditions can be prevented if patients are able to access timely and appropriate outpatient health care - examples of such conditions include diabetes, asthma, congestive heart failure, and some forms of pneumonia.

The prevalence of preventable hospitalizations in St. Louis City has fallen since 2002 but remained stable between 2005 and 2006.

The prevalence of preventable hospitalizations in St. Louis City is 49% higher as compared to the County and 44% higher as compared to Missouri as a whole.

Preventable Hospitalizations

| | 2002 (Crude Rates per 100K) | 2005 (Crude Rates per 100K) | 2006 (Crude Rates per 100K) | Percent Change (05 to 06) |
|---------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------|
| St. Louis City | 2415 | 2022 | 2097 | +3.7% |
| St. Louis County | 1272 | 1418 | 1411 | -0.5% |
| St. Louis City and County | 1546 | 1606 | 1579 | -1.7% |
| Missouri | 1420 | 1451 | 1460 | +0.6% |



Inadequate prenatal care is associated with a greater risk for premature birth as well as physical and mental handicap and infant death.

The prevalence of inadequate prenatal care was unchanged in 2006 as compared to the prior year.

The prevalence of inadequate prenatal care in St. Louis City is comparable to national norms but remains substantially higher than that in St. Louis County.

Definition: The State of Missouri considers prenatal care to be inadequate if pregnant women less than 37 weeks gestation have less than five prenatal visits and pregnancies over 37 weeks gestation have less than eight prenatal visits [Source: *State of Missouri, Department of Health and Senior Services, Missouri Information for Community Assessment (MICA)*]

Births with Inadequate Prenatal Care

| | 2002 (Percent of Live Births) | 2005 (Percent of Live Births) | 2006 (Percent of Live Births) | Percent Change (05 to 06) |
|---------------------------|----------------------------------|----------------------------------|----------------------------------|------------------------------|
| St. Louis City | 21% | 18% | 19% | +5.6% |
| St. Louis County | 10% | 9% | 10% | +11.1% |
| St. Louis City and County | 13% | 12% | 13% | +8.3% |
| Missouri | 14% | 14% | 15% | +7.1% |
| United States | 24% (2002) | 19% (2005) | Data not available | Data not available |



Low birth weight (LBW) infants are defined as those born weighing less than 2,500 grams or about 5.5 pounds. These infants are at higher risk of death or long term disability than infants of normal weight. Birth weight is one of the most important predictors of an infant's subsequent health and survival.

The incidence of LBW infants has shown minimal change between 2002 and 2006.

The prevalence of LBW infants is 39% higher in St. Louis City than in St. Louis County and 51% higher as compared to state-wide statistics.

Low Birth Weight Infants

| | 2002 (Percent of Live Births) | 2005 (Percent of Live Births) | 2006 (Percent of Live Births) | Percent Change (05 to 06) |
|---------------------------|----------------------------------|----------------------------------|----------------------------------|------------------------------|
| St. Louis City | 12.5% | 12.0% | 12.2% | +1.7% |
| St. Louis County | 9.1% | 8.7% | 8.8% | +1.1% |
| St. Louis City and County | 10.1% | 9.7% | 9.9% | +2.1% |
| Missouri | 8.1% | 8.1% | 8.1% | 0.0% |
| United States | 7.7% (2001) | 8.1% (2004) | Data not available | Data not available |



Infant mortality (<age 1) rates fell 29% in the City of St. Louis between 2005 and 2006.

Infant mortality rates fell 10.2% in St. Louis County during this same time period.

The disparity in infant mortality rates in the City versus County narrowed in 2006 as compared to prior years.

Infant Mortality

| | 2002 (Rate per 1,000 live births) | 2005 (Rate per 1,000 live births) | 2006 (Rate per 1,000 live births) | Percent Change (05 to 06) |
|---------------------------------|--|--|--|---------------------------------|
| St. Louis City | 13.8 | 12.4 | 8.8 | -29.0% |
| St. Louis County | 9.1 | 8.8 | 7.9 | -10.2% |
| St. Louis City and County | 10.5 | 9.8 | 8.1 | -17.3% |
| Missouri | 8.5 | 7.5 | 7.4 | -1.3% |
| United States | 7.2 (1997-9) | 6.9 (2005) | Data not available | Data not available |



Lead poisoning may cause irreversible harm to young children including permanent reductions in IQ. Children from all social and economic levels can be affected by lead poisoning, however, children (under 6 years of age) who are living at or below the poverty line and live in older housing (particularly housing built before 1950) are at greatest risk.

The prevalence of elevated lead levels (>10mcg/dl) among screened children has fallen dramatically since 2002 with continued improvement noted between 2005 and 2007.

While encouraging, elevated blood lead levels are detected 3.5 times more frequently among children living in St. Louis City as compared to national rates.

Elevated Lead Levels Among Screened Children Under Age 6

| | 2002 (Screened prevalence rate) | 2005 (Screened Prevalence rate) | 2007 (Screened prevalence rate) | Percent Change (07 to 05) |
|---------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------|
| St. Louis City | 14.7% | 9.1% | 4.4% | -51.6% |
| St. Louis County | 2.1% | 1.3% | 0.7% | -46.2% |
| St. Louis City and County | 7.9% | 4.8% | 2.4% | -50.0% |
| Missouri | 5.0% | 2.8% | 1.5% | -46.4% |
| United States | 2.6% | 1.6% | 1.2% (2006) | -25.0% (06 to 05) |



In St. Louis City, the reported rate of sexually transmitted diseases (STDs) fell slightly between 2005 and 2007.

The reported incidence of STDs in St. Louis County continues to rise.

Despite these trends, the reported prevalence of STDs remains 4-fold greater than the United States as a whole.

NOTE: Variances in reporting practices over time and between community health centers within the City and private practitioners in the County may impact the observed incidence of STDs – The reported rates may therefore not reflect true changes in the prevalence of STDs.

Sexually Transmitted Diseases

| | 2002 (Crude Rates per 100K) | 2005 (Crude Rates per 100K) | 2007 (Crude Rates per 100K) | Percent Change (05 to 07) |
|---------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------|
| St. Louis City | 1713.4 | 2115.1 | 2006.4 | -5.1% |
| St. Louis County | 473.7 | 638.7 | 712.1 | +11.5% |
| St. Louis City and County | 790.8 | 1016.4 | 1043.2 | +2.6% |
| Missouri | 443.3 | 562.1 | 586.2 | +4.3% |
| United States | 414.7 | 459.6 | 485.4 (2006) | +5.6% (06 to 05) |

Data includes new cases of Gonorrhea, Chlamydia, Early Syphilis, and Primary and Secondary Syphilis



HIV (Human Immunodeficiency Virus) is the virus that causes AIDS (Acquired Immune Deficiency Syndrome). Most HIV-infected patients will subsequently develop AIDS. There are medical treatments that can slow down the rate at which HIV weakens the immune system, however, there are no treatments that cure AIDS.

The prevalence of HIV infection in St. Louis City fell 33% (39 fewer cases) between 2005 and 2007 but remains 4 times higher than that in St. Louis County.

NOTE: Historical data has been revised from previous publications to match 2007 methodology.

HIV Infection Incidence

| | 2002 (Crude Rates per 100K) | 2005 (Crude Rates per 100K) | 2007 (Crude Rates per 100K) | Percent Change (05 to 07) |
|---------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------|
| St. Louis City | 19.5 | 38.9 | 26.0 | -33.2% |
| St. Louis County | 5.3 | 6.4 | 6.5 | +1.6% |
| St. Louis City and County | 8.9 | 14.7 | 11.6 | -21.1% |
| Missouri | 5.6 | 7.2 | 7.3 | +1.4% |
| United States | 14.0 | 13.6 | 19.4 (2006) | Data not available |



The suicide rate in St. Louis City, increased in 2006 as compared to prior years – this increase reflects 14 more suicide deaths in 2006 as compared to the prior year.

The decrease in suicide rates in St. Louis County between 2005 and 2006 is attributable to 6 fewer deaths.

Reported rates of suicide have been increasing state-wide since 2002.

While some degree of variability can be expected year-over-year, these trends require continued observation.

Suicide Rates

| | 2002 (Crude Rates per 100K) | 2005 (Crude Rates per 100K) | 2006 (Crude Rates per 100K) |
|---------------------------------|---|---|---|
| St. Louis City | 10.9 | 10.7 | 14.7 |
| St. Louis County | 10.3 | 10.3 | 9.7 |
| St. Louis City and County | 10.5 | 10.4 | 11.0 |
| Missouri | 12.1 | 12.6 | 13.7 |
| United States | 10.7 (2001) | 11.0 (2005) | Data not available |

Data Sources



Health Status Indicators

- Heart Disease Mortality: State of Missouri, Department of Health and Senior Services, Missouri Information for Community Assessment (MICA); Office of Social and Economic Analysis; Centers for Disease Control and Prevention, National Center for Health Statistics; and “Building a Healthier St. Louis”
- Diabetes Mortality: State of Missouri, Department of Health and Senior Services, Missouri Information for Community Assessment (MICA); Office of Social and Economic Analysis; Centers for Disease Control and Prevention, National Center for Health Statistics; and “Building a Healthier St. Louis”
- Infant Mortality: State of Missouri, Department of Health and Senior Services, Missouri Information for Community Assessment (MICA); and Centers for Disease Control and Prevention, National Vital Statistics Report 57.2
- Inadequate Prenatal Care: State of Missouri, Department of Health and Senior Services, Missouri Information for Community Assessment (MICA); and “Building a Healthier St. Louis”
- Low Birth Weight Infants: State of Missouri, Department of Health and Senior Services, Missouri Information for Community Assessment (MICA); and “Building a Healthier St. Louis”
- Suicide Rates: State of Missouri, Department of Health and Senior Services, Missouri Information for Community Assessment; Office of Social and Economic Analysis; Centers for Disease Control and Prevention, National Center for Health Statistics; and “Building a Healthier St. Louis”
- Screened Prevalence Rates for Elevated Lead Levels in Children under 6: Missouri Department of Health and Senior Services and “Building a Healthier St. Louis”
- Preventable Hospitalizations: State of Missouri, Department of Health and Senior Services, Missouri Information for Community Assessment (MICA) and “Building a Healthier St. Louis”
- HIV Infection Incidence: State of Missouri, Department of Health and Senior Services, Missouri Information for Community Assessment (MICA); Office of Social and Economic Data Analysis; Centers for Disease Control and Prevention; U.S. Census Bureau, and “Building a Healthier St. Louis”
- Sexually Transmitted Diseases: State of Missouri, Department of Health and Senior Services; Centers for Disease Control and Prevention; and U.S. Census Bureau

Potential Limitations of this Report



Great care has been taken to ensure the accuracy of the data in this report, and all participating health care institutions were given the opportunity to verify their data for accuracy. The RHC has also taken steps to independently validate all data elements to the fullest extent possible. While the RHC cannot attest to the complete accuracy of all presented data, these efforts significantly reduce the potential for data collection or reporting errors. Readers are encouraged to contact the RHC with questions concerning methodology or data validity.

The Importance of Community Input



The RHC believes that in order to create and implement change in our health care system, it is critical that our work be inclusive, and that citizens are engaged in our decision-making processes. We also recognize that in order for us to succeed, several things must occur:

- Actions must be community-driven
- Partnerships must be developed with communities
- The engagement efforts must recognize and respect community diversity
- Community assets must be identified and mobilized

It is important to our work that community members play a key role in defining the problems and in planning and instituting steps to create solutions. In February 2001, concerned individuals from across the region came together for a “Call to Action.” Community members provided the RHC with recommendations for improving health in our region. The RHC has taken its direction from the community priorities raised at the “Call to Action” Initiative and from dozens of citizen forums conducted by the RHC and other groups in our region.

Throughout our work over the past 7 years, the RHC has also relied on its Advisory Board process to set its direction and priorities. The Advisory Boards are made up of health care providers, community organization representatives, safety net patients, and other community leaders. The Advisory Board members have worked with the Commissioners to help define the problems, conduct research, and implement major improvement efforts in the community.

In addition, community organizations from across the region have provided critical input into our work. Over the past 7 years, the RHC members and staff have met with thousands of neighborhood, community, and health-related groups. These organizations have contributed to both our process and priorities.

The RHC will continue to reach out to the community. The public is invited to all of our meetings, which are posted on our web site at www.stlrhc.org. We will also be continuing to gather additional community feedback and to develop solutions for strengthening the safety net system. Members of the Commission, our Advisory Boards, or the RHC staff would be pleased to have an opportunity to meet with your community or neighborhood group.

Together, we will continue to improve health for everyone in our region. Thank you for joining us in this work.