

## LOUISVILLE MSA, KENTUCKY-INDIANA COMMUNITY ASSESSMENT FACTBOOK

### EXECUTIVE SUMMARY

Ford Motor Company and the International Union, UAW, working with the community, launched a *Community Health Initiative* in the Louisville Metropolitan Statistical Area (MSA) to encourage continued improvement in the health status of the community. The initiative seeks to ensure high quality health care, promote healthy lifestyles, prevent disease and control health care costs through the efficient and appropriate delivery of health services.

The Lewin Group compiled a comprehensive Factbook, which provides an assessment of the community's health; resources; service utilization; quality of care; and health care charges, costs and payments. The Factbook is one part of the assessment process that also includes gathering information from community leaders and health care providers, collecting survey information and reviewing other community studies and reports.

#### PURPOSE OF THE ASSESSMENT

The community initiative vision rests on the notion that diverse constituencies, such as providers, consumers, labor unions, employers, insurers, public health and other government agencies, elected officials, philanthropic organizations and the media, can come together to identify common goals and implement synergistic strategies for health system improvement.

The Factbook is used to inform and facilitate the "action planning phase" of the initiative. Rather than providing conclusive recommendations regarding what or how the community should change, the assessment aims to:

- provide a common understanding of local population needs and health care resources;

- compare performance of the health care delivery system in the Louisville MSA to other communities and national standards;
- identify gaps between needs and resources and target opportunities for change;
- provide a "fact base" to facilitate community level action planning and priority setting; and
- establish an information baseline for future community monitoring efforts.

#### METHODOLOGY

This community assessment compares the Louisville MSA's performance with a wide range of "benchmarks". Benchmarks serve as reference points against which the community can assess its health and health system and identify opportunities for improvement. Benchmarks used in the assessment include:

- **norms**, including the states of Indiana and Kentucky and the national average;
- **comparison communities**, including the Nashville, TN MSA and the Milwaukee-Waukesha, WI MSA.
- **industry- and consensus-based standards**, such as Healthy People 2010 objectives.

For the purposes of this analysis, the "target community" is defined as the Louisville MSA, including the Indiana counties of Clark, Floyd, Harrison and Scott, and the Kentucky counties of Bullitt, Jefferson and Oldham. This target community includes both the residents of the Louisville MSA and the health care providers located within the MSA. All data in the Factbook reflect the experience of the entire community, not just that of auto industry employees.

## KEY ASSESSMENT FINDINGS

### Health Status

- Fewer demographic and socioeconomic risks related to health status.
- Higher mortality for most types of chronic diseases and cancers.
- Comparable emphasis on prevention and healthy lifestyle.
- Higher rates of smoking and chronic drinking.
- Poor birth outcomes and higher incidence of risk behavior for pregnant women.
- Some indications of positive mental health status.
- Adequate air quality, but poor water quality.
- Lower rates of injury, but slightly higher rates of crime.
- Significant racial disparities in health, yet similar to other areas.

### Health Care Resources and Utilization

- Little out-migration for care; significant in-migration.
- Excess inpatient staffed bed capacity, but limited availability of intermediate and post-acute long-term care beds.
- Limited availability in some counties of inpatient psychiatric and substance abuse, cardiovascular and perinatal health services.
- Higher proportion of primary care and specialty physicians.
- Higher inpatient utilization (admissions, days and average lengths of stay) for circulatory, respiratory and musculoskeletal disorders.

### Health Care Charges, Costs and Payments

- Higher inpatient charges, comparable inpatient costs.
- Higher Medicare payments for circulatory, liver and pancreas admissions.
- Lower average payments for professional services.

### Health Care Quality

- More frequent use of some commonly over utilized and invasive procedures, such as hysterectomies.
- Favorable indicators for timely detection of disease and adequate primary care, except for some circulatory admissions.
- Room for improvement on some "effectiveness of care" measures, such as long hospital stays for coronary bypass surgery.

## OVERVIEW OF KEY FINDINGS

The Louisville MSA has a number of health care-related assets on which to build. Residents of the Louisville MSA have a favorable demographic and socioeconomic profile, including lower rates of unemployment and uninsurance. These factors make it easier for individuals to access health care and maintain positive health outcomes. Some evidence of this finding is seen in residents' use of screening and prevention services. Residents of the Louisville MSA use cholesterol and blood pressure screenings, as well as get mammograms and pap smears at comparable rates to benchmarks. In addition, the Louisville MSA has more primary and specialty care physicians per 100,000 persons than the U.S., which may make it easier to access services. Hospital resources also appear adequate, as residents of the Louisville MSA rarely seek inpatient care in other areas outside of the MSA and residents from other communities often seek care inside of the MSA.

There also are a number of areas where the Louisville MSA could improve. Residents of the Louisville MSA have higher rates of mortality from chronic diseases than residents of other communities, including high blood pressure, heart disease, kidney disease, liver disease and chronic obstructive pulmonary disease (COPD). Residents also have higher incidence and mortality rates from all types of cancer. Several behavioral risk factors, such as high rates of smoking and chronic drinking, may be contributing to these outcomes. In addition, women in the MSA are disproportionately affected by some chronic diseases and cancer, with mortality rates over twice the national rate for women from cardiovascular disease, heart disease, COPD and kidney disease and higher rates of mortality than women in other

communities for trachea, lung, and bronchus cancer. Women in the community also have poor perinatal outcomes, such as low birth weight babies. A contributing factor to these outcomes is the high proportion of women reporting alcohol and tobacco use during pregnancy.

Higher rates of chronic disease and cancer within the MSA are reflected in higher inpatient utilization for three disease categories: circulatory, respiratory and musculoskeletal disorders. Residents of the Louisville MSA generally have higher admissions, days and longer average lengths of stay than residents of other communities for several conditions within these disease categories, including heart failure, COPD and major joint and limb reattachments.

Some quality of care indicators in the Louisville MSA related to many chronic conditions also are less favorable. Residents have higher admissions for select cardiac procedures that are commonly “over utilized”, such as heart bypass surgery and cardiac catheterizations. Higher utilization of these procedures may be related to high prevalence of disease in the community or may suggest inappropriate use. Residents also have higher admissions for two ambulatory care sensitive conditions: heart attacks and transient ischemic attacks, which is a warning signal for stroke. High admissions for ambulatory care sensitive conditions may suggest opportunities to prevent hospital admissions through timely and high quality outpatient care and disease management.

The rural nature of some parts of the MSA makes resources scarce in some counties. While, the Louisville MSA has excess hospital staffed beds, some counties have a shortage of staffed beds, particularly maternity beds. Hospitals in the Indiana counties within the Louisville MSA do not provide either angioplasty or open heart surgery. In addition, no cardiovascular services are available at hospitals in Harrison and Scott Counties.

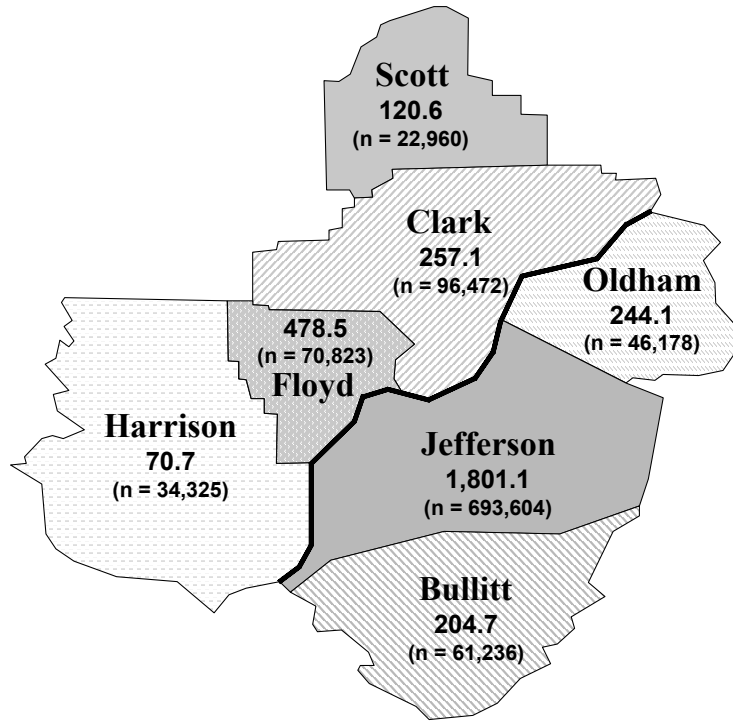
Intensive care resources also are limited in Indiana hospitals within the MSA. Although five hospitals offer medical/surgical ICU services, neonatal intensive care unit (NICU) services and pediatric intensive care unit (PICU) services are not available from Indiana hospitals within the MSA. This likely is due to how the regional delivery system is organized for these services. If Indiana residents need these services, they generally seek care from hospitals from other Indiana-based hospitals outside the MSA or hospitals in Jefferson County, KY.

The remainder of this executive summary provides an overview of the Louisville MSA and findings for each section of the Factbook, which is divided into two main sections: Health Assessment and Delivery System Assessment. The Health Assessment includes demographic and socioeconomic profile of the Louisville MSA, as well as indicators on health status. The Delivery System Assessment includes subsections on hospital and physician resources; inpatient and professional service utilization; health care charges, costs and payments; and health care quality.

## **DEMOGRAPHIC PROFILE OF THE LOUISVILLE MSA**

The Louisville MSA is comprised of Bullitt, Jefferson and Oldham Counties in Kentucky and Clark, Floyd, Harrison and Scott Counties in Indiana. The population of the MSA was 1,025,598 in 2000. Jefferson County is the most populated county, comprising approximately 68 percent of the total population in the Louisville MSA. The Louisville MSA population grew by eight percent between 1990 and 2000, with the largest population increases occurring in Bullitt and Oldham Counties and the least growth occurring in Jefferson County. Jefferson County is the most urban county, and Scott and Harrison Counties are mainly rural.

Population Density by County (persons per square mile)  
2000



In 2000 about 27.4 percent of the residents were aged 19 years and under and 12.6 percent were aged 65 years and older. Within the MSA, Jefferson County has the largest proportion of elderly (13.5 percent), while Bullitt and Oldham Counties have the largest proportion of youth under age 20 (29.8 percent). Minorities comprised about 18 percent of the Louisville MSA population in 2000, of which over three-quarters were African Americans.

OVERVIEW OF FINDINGS RELATED TO HEALTH STATUS: THE LOUISVILLE MSA

Summary Results of Health Status Indicators	
Demographic and Socioeconomic Characteristics	+
Injury	+
Racial Disparities (mortality)	+
Racial Disparities (perinatal)	↔
Behavioral Risk Factors	↔
Communicable Disease	↔
Environment	↔
Social Environment	↔
Chronic Disease	—
Cancer	—
Perinatal Health	—

Louisville MSA's Performance Relative to Benchmarks:

+ More Favorable   ↔ Comparable   ↔ Within the Range   — Less Favorable

### **Fewer Demographic and Socioeconomic Risks Related to Health Status**

- Compared to benchmarks, Louisville MSA residents exhibit similar age distributions, comparable racial and ethnic diversity, higher incomes and a similar rate of poverty, slightly lower unemployment rate, fewer uninsured residents and slightly fewer residents with high school education or higher.

### **Higher Rates of Mortality from Chronic Disease and Cancer**

- The two leading causes of death in the Louisville MSA are heart disease and cancer.
- Residents in the Louisville MSA have higher rates of mortality for most chronic diseases, including cardiovascular disease, heart disease, high blood pressure, cerebrovascular disease (stroke), chronic liver disease and kidney disease. They also have more potential years of life lost related to many of these conditions.
- Residents of the MSA have higher rates of incidence and mortality for all cancers, including trachea, bronchus and lung cancer; breast cancer; prostate cancer; and colon cancer.

### **Women have Disproportionately High Rates of Chronic Disease and Cancer**

- Women in the Louisville MSA have over twice the national mortality rate for cardiovascular disease, heart disease, chronic obstructive pulmonary disease

(COPD) and kidney disease and a significantly higher mortality rate than women in benchmarks for trachea, lung and bronchus cancer.

### **Higher Rates of Smoking and Chronic Drinking**

- Louisville MSA residents self report higher rates of smoking among adults (28 percent).
- Louisville MSA adult residents self report higher rates of chronic drinking (4 percent), but lower rates of binge drinking (23 percent).

### **Comparable Use of Preventive Services, but Room for Improvement**

- A comparable percentage of Louisville MSA residents report using preventive services, including blood pressure screening (96 percent), cholesterol screening (73 percent), diabetic eye exams (68 percent), pap smears (90 percent) and mammograms (90 percent).
- Room for improvement in the areas of screening and disease detection may exist, given that nearly 28 percent of residents report having high blood pressure and the high rates of other chronic conditions in the community.
- A significant proportion of residents report being overweight (38 percent), leading a sedentary lifestyle (69 percent) and having inadequate diets (37 percent), but the proportion is comparable to benchmarks.

## **Chronic Disease and Cancer 1998**

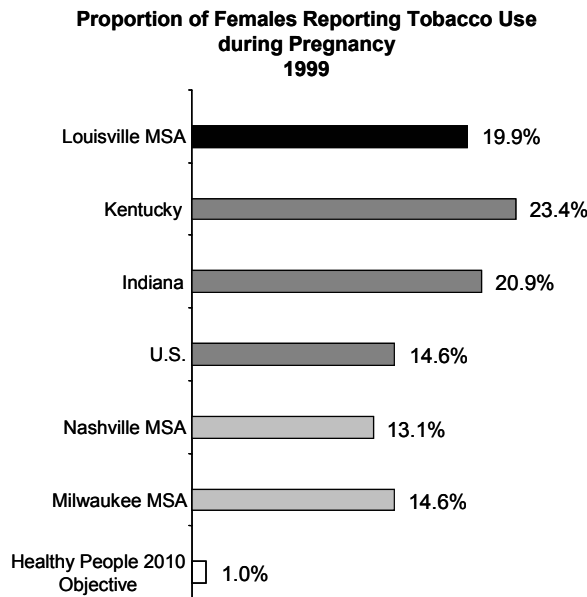
	<b>Louisville MSA</b>	<b>Louisville MSA Relative to Benchmarks</b>
Heart Disease – Mortality (per 100,000 persons)	304.8	—
All Malignant Neoplasms – Mortality (per 100,000 persons)	180.3	—
Trachea, Lung, and Bronchus Cancer - Mortality (per 100,000 persons)	63.0	—
Chronic Obstructive Pulmonary Disease – Mortality (per 100,000 persons)	60.5	—
Kidney Disease – Mortality (per 100,000 persons)	16.1	—
Chronic Liver Disease – Mortality (per 100,000 persons)	10.1	—

Louisville MSA's Performance Relative to Benchmarks:

+ More Favorable    ↔ Comparable    ↔ Within the Range    — Less Favorable

**Increased Perinatal Risk from Mother's Behavior**

- A higher proportion of women in the Louisville MSA report using tobacco and alcohol during pregnancy. A comparable or slightly lower proportion of women report receiving first trimester prenatal care (88 percent).



- The Louisville MSA has a higher proportion of low and very low birth weight infants (8.7 percent and 1.9 percent, respectively) and comparable to slightly higher rate of infant mortality (7.5 per 1,000 live births).

**High Rates for Some Communicable and Sexually Transmitted Diseases**

- Residents of the Louisville MSA have higher rates of mortality from pneumonia and influenza and a lower vaccination rate for influenza for the elderly.
- Incidence rates for syphilis and gonorrhea are higher for residents of the Louisville MSA.

**Adequate Air Quality, but Poor Water Quality**

- Two out of the five watersheds in the Louisville MSA are rated by the EPA as having serious water quality problems, and

25 percent of residents in the MSA are served by a community water system that does not receive a supply of drinking water that meets EPA standards.

- The Louisville MSA has comparable air quality to other areas, a similar number of hazardous waste sites and a lower proportion of substandard housing units.

**Some Indications of Positive Mental Health Status**

- Teens in the Louisville MSA have lower suicide rate, while adults have comparable or slightly higher rates of suicide mortality. Fewer residents of the Louisville MSA report that poor physical or mental health prevented them from their usual activities.

**Lower Rates of Injury but Slightly Higher Rates of Some Crimes**

- Residents of the Louisville MSA have lower mortality rates from unintentional adult and child injuries and motor vehicle accidents.
- Reports of motor vehicle theft and rape are lower for Louisville MSA residents.
- Louisville MSA residents have higher reported rates of aggravated assault, robbery and firearm-related mortality and comparable to slightly higher rates of homicide and murder and non-negligent manslaughter.

**Significant Racial Disparities in Health, yet Similar to Other Areas**

- Similar to national trends, African Americans in the Louisville MSA, particularly in Jefferson County, are more likely than white residents to live in poverty, have a lower income, receive less education, have higher overall mortality rates and have poorer perinatal health outcomes.
- Overall, disparities in health status between racial and ethnic groups in the Louisville MSA are similar or slightly less than disparities in benchmarks.

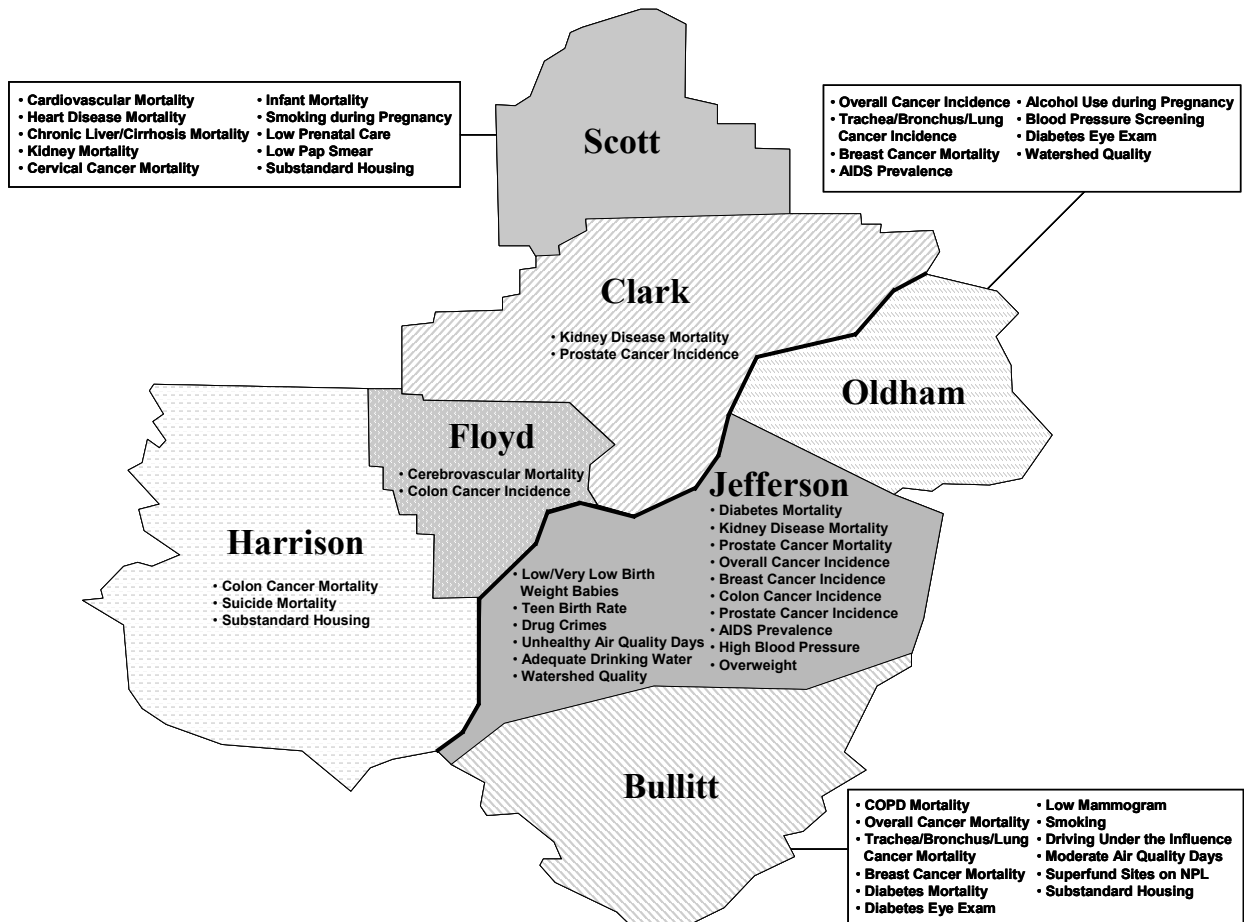
**OVERVIEW OF FINDINGS RELATED TO HEALTH STATUS: COUNTY PROFILE**

The map below highlights the health status conditions within each county that are most problematic relative to other counties within the MSA. Data on communicable disease, social environment, injury and racial disparities generally are not available by county. The following summarizes the major findings on health status at the county level:

- Residents of the Kentucky counties have higher rates of cancer.

- Residents of the Indiana counties have higher rates of chronic disease.
- Women are disproportionately affected by chronic disease and cancer in some counties.
- Residents of Indiana counties report less use of preventive services and engage in riskier behaviors more often.
- Water and air quality problems are more pronounced in the Kentucky counties.

**Counties Rating Poorest, Relative to Other Louisville MSA Counties, on Health Assessment Indicators**



**OVERVIEW OF FINDINGS RELATED TO HEALTH SERVICES RESOURCES AND UTILIZATION**

***Little Out-migration for Care; Significant In-migration***

- The Louisville MSA has a total of 23 hospitals throughout the seven-county region. The majority of the hospitals within the MSA are located in Jefferson County (n = 16). There are six hospitals that operate within the four Indiana counties of the MSA.
- Residents of the Louisville MSA seek 99 percent of their inpatient health care at hospitals within the MSA, with the majority of care delivered in hospitals located in Jefferson County.
- Residents of Kentucky counties within the Louisville MSA generally seek inpatient care in Jefferson County, while residents of Indiana counties of the MSA generally seek inpatient care in hospitals located in their own counties. The one exception to this pattern is for residents of Harrison County, who primarily seek their care in Jefferson County hospitals.
- Many out-of-area residents seek care in the Louisville MSA, resulting in a 25 percent net increase in service volume for Louisville MSA hospitals.

***Excess Inpatient Staffed Bed Capacity***

- Based on estimates of bed demand and supply (assuming U.S. average occupancy rates), the Louisville MSA has an excess inpatient acute care staffed bed capacity of 17 percent.

- In contrast, there is limited availability of hospital-based maternity and post-acute care beds within the MSA, particularly for intermediate and acute long-term care.

***Fewer Services Available in Some Counties***

- Inpatient psychiatric and substance abuse services are only available in Jefferson and Clark Counties.
- Indiana hospitals within the MSA offer relatively fewer services for inpatient cardiovascular and perinatal health compared to hospitals in Jefferson and Oldham Counties.

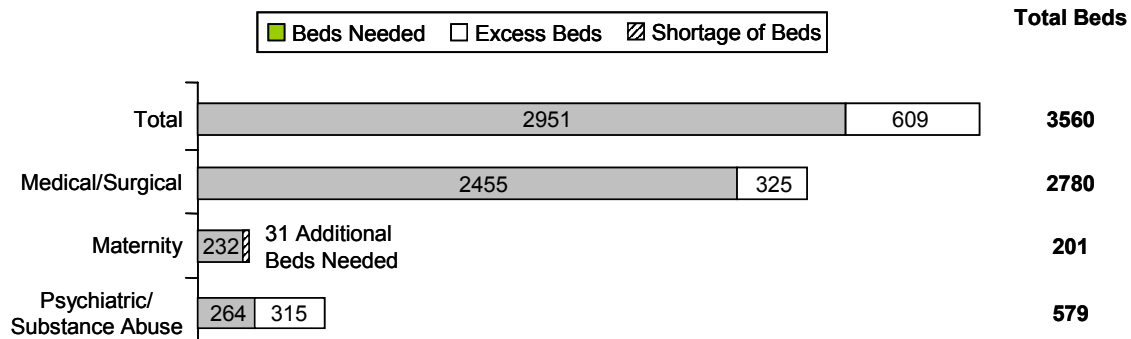
***Higher Proportion of Physicians***

- The Louisville MSA has more physicians per 100,000 persons than benchmarks.
- The Louisville MSA has a higher proportion of direct care physicians than most benchmarks, including primary care physicians and specialty care physicians.
- Within the MSA, Jefferson County has the highest proportion of physicians per 100,000 persons for both primary and specialty care. Bullitt and Scott Counties have the lowest proportions.

***Comparable Overall Inpatient Admissions and Days, but Longer Average Lengths of Stay***

- Residents of the Louisville MSA are admitted to hospitals at a rate comparable to most benchmarks (122.0 admissions per 1,000 persons) and utilize a similar number of inpatient days (623.6 days per 1,000 persons).

**Bed Demand vs. Staffed Bed Supply (with migration)  
Louisville MSA  
2000**



- The average length of stay for inpatient care is slightly longer for residents of the Louisville MSA (5.1 days) than for residents of other communities.

**Higher Utilization for Circulatory, Respiratory and Musculoskeletal Disorders**

- Circulatory system disorders rank the highest in both total admissions and days used by MSA residents. Louisville MSA residents experience higher admissions, days and longer average lengths of stay for circulatory system disorders relative to benchmarks.
- Residents have higher admissions, days and longer average lengths of stay for respiratory system disorders relative to benchmarks. Pneumonia and chronic obstructive pulmonary disease are among the highest admissions within this MDC.
- Louisville MSA residents incur higher admissions, days and longer average lengths of stay for several procedures related to musculoskeletal system disorders, including hip and knee replacement.

**Higher Use of Prevention, Screening and Emergency Room Professional Services**

- Office visits and pathology services comprise over 50 percent of professional health care utilization for commercially insured residents in the Louisville MSA.
- Residents of the Louisville MSA have higher utilization for many preventive and screening-related professional services,

such as immunizations, mammography services and well baby exams, than Kentucky and Indiana, which may indicate increased access to primary care in the community.

- Paradoxically, use of emergency room services also is higher, which often is associated with inadequate access to primary care.

**OVERVIEW OF FINDINGS RELATED TO HEALTH CARE QUALITY**

Indicators of health care quality delivered to Louisville MSA residents are examined across three dimensions: over utilization and invasiveness of treatment, setting and timeliness of treatment and effectiveness of treatment.

**Less Favorable Performance for Over Utilized and Invasive Procedures**

- Louisville MSA residents have higher admission rates for some surgical procedures that are known to be commonly “over utilized” across the nation, including coronary artery bypass grafts (CABG), cardiac catheterizations and laminectomies (back surgeries).
- Women in the MSA also experience higher use of invasive obstetrical and gynecological procedures compared to benchmarks.
- Within the Louisville MSA, indicator results vary. Jefferson County residents have the highest admission rates for several

**Utilization for Top MDCs and DRGs with the Highest Admissions and Days:  
Louisville MSA Compared to Benchmarks  
2000**

DRG	Admissions per 1,000 Persons	Days per 1,000 Persons	Average Length of Stay
<b>All Types of Admissions</b>	↔	↔	↑
<b>MDC 4: Respiratory System</b>	↑	↑	↑
89: Simple Pneumonia and Pleurisy with Complicating Conditions, Aged >17 Years	↔	↑	↑
88: Chronic Obstructive Pulmonary Disease	↔	↑	↑
<b>MDC 5: Circulatory System</b>	↑	↑	↑
127: Heart Failure and Shock	↔	↑	↑
143: Chest Pain	↑	↑	↑
<b>MDC 8: Musculoskeletal System</b>	↑	↑	↑
209: Major Joint and Limb Reattachment Procedures of Lower Extremity	↑	↑	↔
248: Tendonitis, Myositis and Bursitis	↑	↑	↑

Louisville MSA’s Performance Relative to Benchmarks: ↑ Higher ↔ Comparable ↔ Within the Range ↓ Lower

commonly over utilized procedures, such as cardiac catheterizations and laminectomies among men. However, some invasive procedures are used more often in the four Indiana counties than they are in the Kentucky counties.

**Favorable Indicators for Timely Care for Chronic Disease, Except for Some Circulatory Admissions**

- The Louisville MSA performs favorably on most indicators examining ambulatory care sensitive conditions (e.g., diabetes, asthma). These are conditions that often can be managed in ambulatory care settings to prevent hospital admissions.
- Louisville MSA residents have higher inpatient admission rates for acute myocardial infarction (heart attacks) than most benchmarks. Both men and women within the MSA exhibit higher rates than men and women in benchmarks. Within the MSA, residents of the four Indiana counties have

the highest admission rates, while Jefferson County residents have the lowest rate.

- The Louisville MSA also has higher admissions for transient ischemic attacks (TIAs), the warning signals of stroke.
- High cardiac admissions may indicate high levels of disease in the community, but it also may reveal opportunities to improve disease management outside the hospital.

**Mixed Performance on Effectiveness of Care**

- Louisville MSA residents experience longer average lengths of stay and higher mortality for coronary artery bypass surgery, possibly indicating that residents are experiencing higher rates of complications during or after surgery.
- Relative to benchmarks, the Louisville MSA has comparable lengths of stay for angioplasty and obstetrical care.

---

**Summary Results of Quality of Care Indicators**

---

**Over Utilization**

Angioplasty	+
Laminectomy, CABG, Cesarean Section, Cardiac Catheterization (females)	—

**Invasiveness**

Cholecystectomies Performed Laparoscopically	↔
Hysterectomies Performed Vaginally and Laparoscopically	—

**Setting and Timeliness**

Admissions for Ambulatory Sensitive Conditions (pediatric asthma, diabetic admissions and complications, stroke)	+
Heart Attacks, TIA, COPD	—

**Effectiveness**

Angioplasty ALOS, Obstetrical ALOS, Cesarean Section ALOS	↔
CABG ALOS and Mortality	—

---

Louisville MSA's Performance Relative to Benchmarks:

+ More Favorable   ↔ Comparable   ⇔ Within the Range   — Less Favorable

**Summary of Average Charges, Average Costs and Medicare Payments  
Louisville MSA Inpatient Admissions  
2000**

<b>MDC</b>	<b>Hospital Charges per Admission*</b>	<b>Hospital Costs per Admission*</b>	<b>Medicare Payment per Admission</b>
<b>All Types of Admissions</b>	<b>\$13,046</b>	<b>\$6,068</b>	<b>\$6,732</b>
1: Nervous System	\$14,342	\$7,218	\$5,898
4: Respiratory System	\$13,710	\$6,946	\$6,386
5: Circulatory System	\$18,415	\$9,140	\$6,626
6: Digestive System	\$12,382	\$6,337	\$6,156
7: Hepatobiliary System and Pancreas	\$13,363	\$6,774	\$7,464
8: Musculoskeletal System	\$16,845	\$8,541	\$7,316
11: Kidney and Urinary Tract	\$11,204	\$5,727	\$5,184
13: Female Reproductive System	\$ 8,865	\$4,719	\$5,741
14: Pregnancy and Childbirth	\$ 5,204	\$2,785	N/A
15: Newborns and Neonates	\$ 4,270	\$2,223	N/A
19: Mental Diseases and Disorders	\$11,677	\$4,168	\$6,064

\* Based on aggregated data for all payors.

**OVERVIEW OF FINDINGS RELATED TO HEALTH  
CARE CHARGES, COSTS AND PAYMENTS**

***Higher Inpatient Charges, Comparable Inpatient  
Costs***

- Inpatient charges per admission in the Louisville MSA are higher than benchmarks, and inpatient costs are comparable. Charges and costs per admission are highest for circulatory system care.
- Jefferson County residents have the highest average charges, while the total cost of inpatient care is highest for residents of the four Indiana counties within the MSA.

***Higher Medicare Payments for Circulatory, Liver  
and Pancreas Admissions***

- Average total inpatient Medicare payments for Louisville MSA Medicare enrollees are comparable to benchmarks. However, Medicare payments vary considerably at the MDC level.
- Louisville MSA Medicare enrollees have lower Medicare payments per admission for respiratory, circulatory and digestive system disorders and higher payments for musculoskeletal and female reproductive system disorders.

- Medicare payments per admission for Louisville MSA Medicare enrollees are highest for hepatobiliary system (liver) and pancreas diseases and disorders. Admissions and payments for circulatory care for Medicare enrollees in the Louisville MSA also are high relative to other types of admissions.

**COMMUNITY HEALTH INITIATIVE:  
DEFINITIONS**

**Charge** = Reflects the amount that hospitals bill consumers (full price), health plans and employers for inpatient services (e.g., room and board, supplies, nursing care, etc.).

**Comparison Communities** = Communities that are demographically and socioeconomically similar to the target area but have different types of health care delivery systems.

**Cost** = Reflects the amount that hospitals spend to provide inpatient services.

**Delivery System Assessment** = Focuses on the resources available to the target community, the level of appropriateness of the services in the community and their cost.

**Diagnosis-related Groups (DRGs)** = Detailed classifications of diagnoses within MDCs in which patients demonstrate similar resource consumption patterns.

**Health Assessment** = Examines the demographic, socioeconomic and health status profiles of the target area relative to benchmarks.

**Incidence** = The number of new events or cases of disease that develop in a population of individuals in a fixed period of time.

**Major Diagnostic Categories (MDCs)** = Broad classifications of diagnoses typically grouped by body system; established by the Centers for Medicare and Medicaid (CMS).

**Mortality** = The rate at which a given population dies from a disease.

**Payment** = Reflects the actual amount paid to providers, accounting for any discounts and negotiated rates from health plans, but not including any patient co-payments or deductibles.

**Prevalence** = The number of individuals in a population who have a disease in a fixed period of time.

**Target Area** = Louisville, MSA which includes Clark, Floyd, Harrison and Scott Counties, IN and Bullitt, Jefferson and Oldham Counties, KY.