

# Prevention Quality Indicators

# What are Prevention Quality Indicators (PQIs)?

- The PQIs are a set of measures that can be used with hospital inpatient discharge data to identify “ambulatory care sensitive conditions” (ACSCs). ACSCs are conditions for which good outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease. This is accomplished by measuring the outcomes of preventive and outpatient care through analysis of inpatient discharge data.

# What ACSCs are included in the PQIs?

PQI Number	Prevention Quality Indicator
1	Diabetes Short-term Complication Admission Rate
2	Perforated Appendix Admission Rate
3	Diabetes Long-term Complication Admission Rate
5	Chronic Obstructive Pulmonary Disease Admission Rate
7	Hypertension Admission Rate
8	Congestive Heart Failure Admission Rate
9	Low Birth Weight
10	Dehydration Admission Rate
11	Bacterial Pneumonia Admission Rate
12	Urinary Tract Infection Admission Rate
13	Angina Admission Without Procedure Admission Rate
14	Uncontrolled Diabetes Admission Rate
15	Adult Asthma Admission Rate
16	Rate of Lower-extremity Amputation Among Patients with Diabetes
90	Overall (Includes all PQIs except 2 and 9)
91	Acute (Includes PQIs 10, 11, and 12)
92	Chronic (Includes PQIs 1, 3, 5, 7, 8, 13, 14, 15, and 16)

# How were PQIs Developed?

The Agency for Healthcare Research and Quality (AHRQ) developed PQIs in response to the need for accessible, reliable indicators of quality that can be used to flag potential problems, follow trends over time, and identify disparities across regions, communities, and providers.

# What is the basis for PQI Rates?

All PQIs except PQI 2 (Perforated Appendix) and PQI 9 (Low Birth Rate) are based on rates per 1,000 population that are age 18 years or older.

PQI 2 is based on rates per 1,000 hospital discharges.

PQI 9 is based on rates per 1,000 newborns/neonates.

# How are PQI Rates Computed?

Inpatient discharge data was compiled and analyzed using AHRQ software which was specifically designed for that purpose. The software is provided free by AHRQ.

# Are Rates Risk Adjusted?

Rates for all PQIs except 2 and 9 are risk adjusted for age and gender. PQI 2 and 9 are not risk adjusted.

# How is the Margin of Error Determined?

When a risk adjusted rate is computed a margin of error exists. The confidence level (Risk Adjusted Confidence Interval Low” and “Risk Adjusted Confidence Interval High”) represents the margin of error based upon the number of cases performed.

# How were the National Rate and State Rate determined?

The National Rate was obtained from:  
Nationwide Inpatient Sample, 2004,  
AHRQ Web Site:

<http://www.qualityindicators.ahrq.gov>

The State Rate was compiled by the AHRQ software.

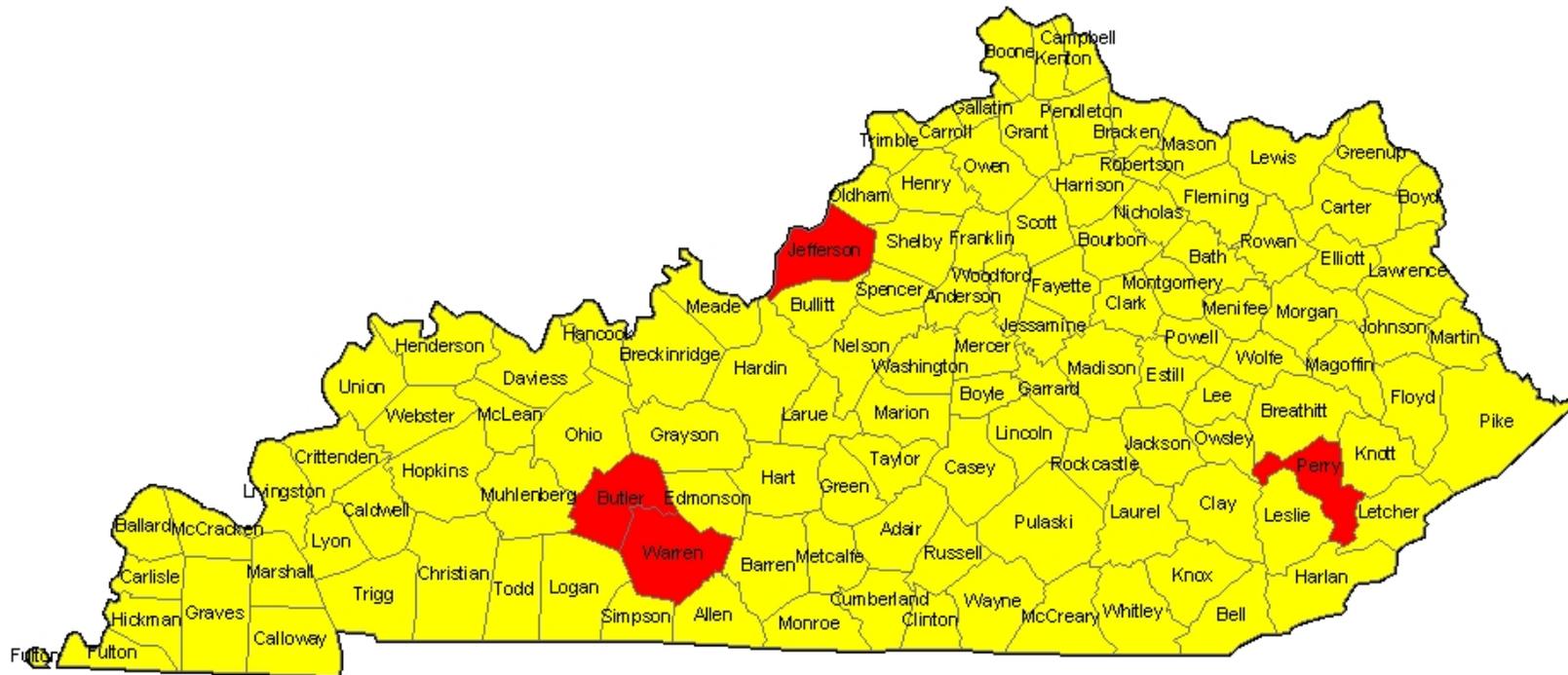
What output was created from this analysis?

The Office of Health Policy generated a Kentucky County Map for each PQI. Each map depicts how each county's rates compare to the national rate. The following are those maps.



## Perforated Appendix Admission Rate (PQI 2)

Based on Kentucky Hospital Inpatient Discharge Claims  
January 1, 2006 to December 31, 2006



National rate per 1,000 discharges\* is 301.70\*\*  
State rate per 1,000 population\* is 332.42

### PQI 2 Risk Adjusted Rate (Considering Margin of Error)

- Yellow: Comparable to National Rate
- Red: Above National Rate

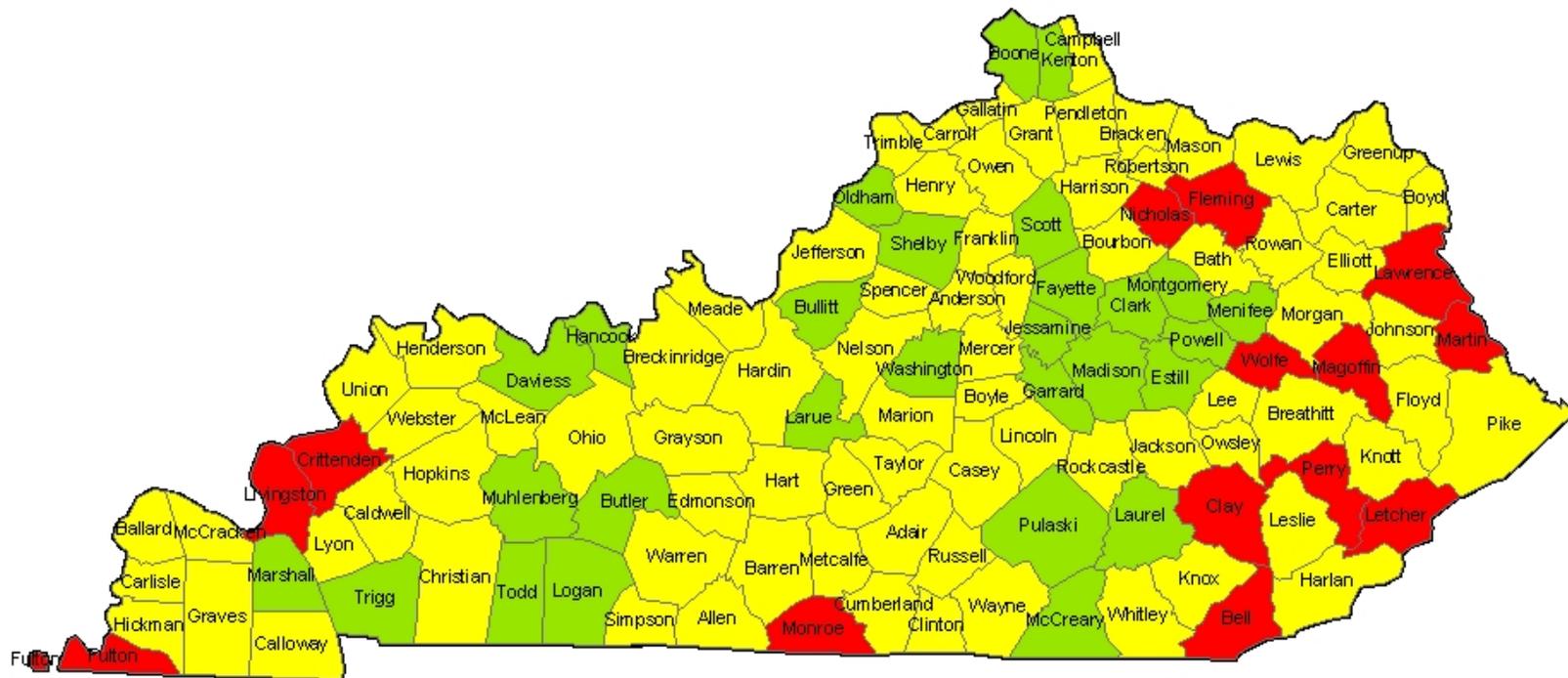
\*All non-maternal discharges age 18 years and older

\*\*Source: Nationwide Inpatient Sample, 2004, AHRQ Web Site: <http://www.qualityindicators.ahrq.gov>

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# Diabetes Long-term Complications Admission Rate (PQI 3)

Based on Kentucky Hospital Inpatient Discharge Claims  
January 1, 2006 to December 31, 2006



National rate per 1,000 population\* is 1.27\*\*  
State rate per 1,000 population\* is 1.16

### PQI 3 Risk Adjusted Rates (Considering Margin of Error)

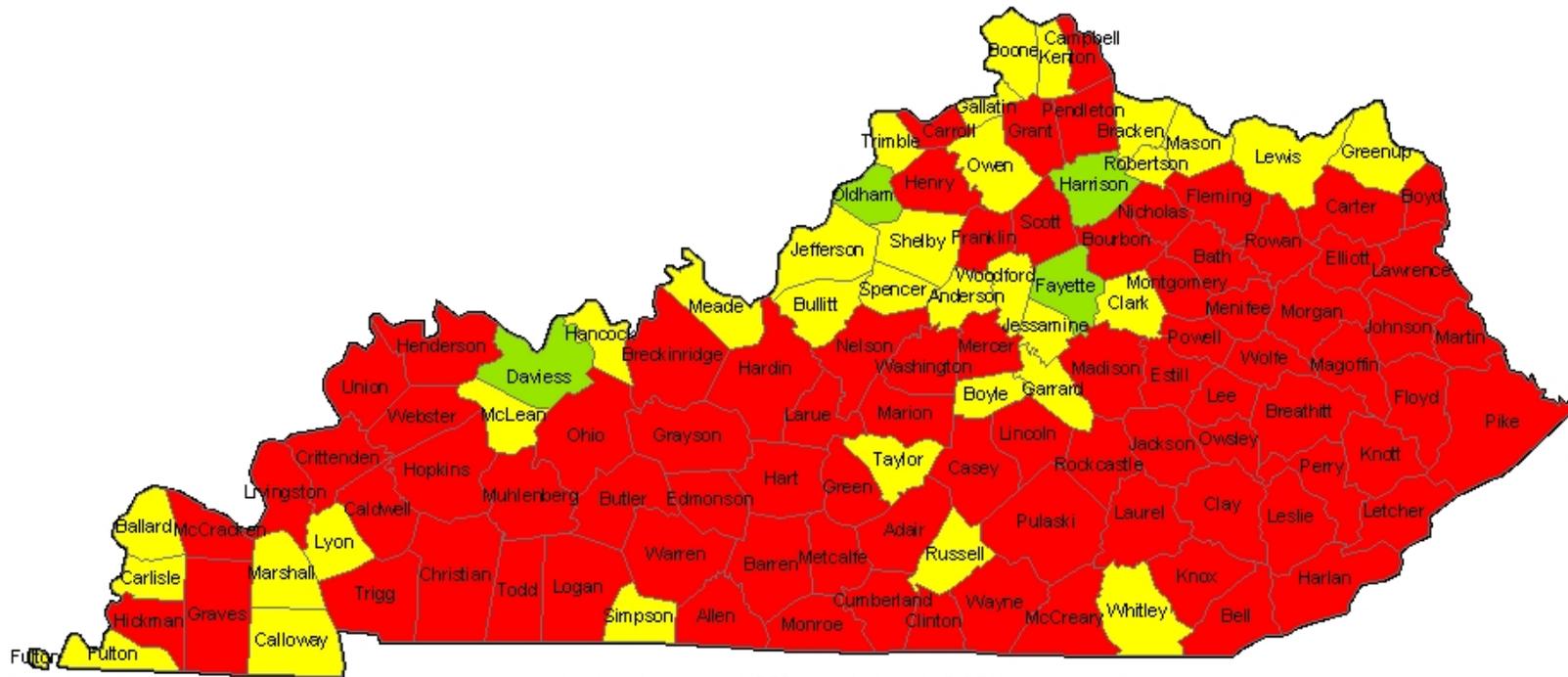
- Below National Rate
- Comparable to National Rate
- Above National Rate

\*Population age 18 years or older

\*\*Source: Nationwide Inpatient Sample, 2004, AHRQ Web Site: <http://www.qualityindicators.ahrq.gov>

# Chronic Obstructive Pulmonary Disease Admission Rate (PQI 5)

Based on Kentucky Hospital Inpatient Discharge Claims  
January 1, 2006 to December 31, 2006



National rate per 1,000 population\* is 2.30\*\*  
State rate per 1,000 population\* is 4.00

### PQI 5 Risk Adjusted Rate (Considering Margin of Error)

- Below National Rate
- Comparable to National Rate
- Above National Rate

\*Population age 18 years or older

\*\*Source: Nationwide Inpatient Sample, 2004, AHRQ Web Site: <http://www.qualityindicators.ahrq.gov>



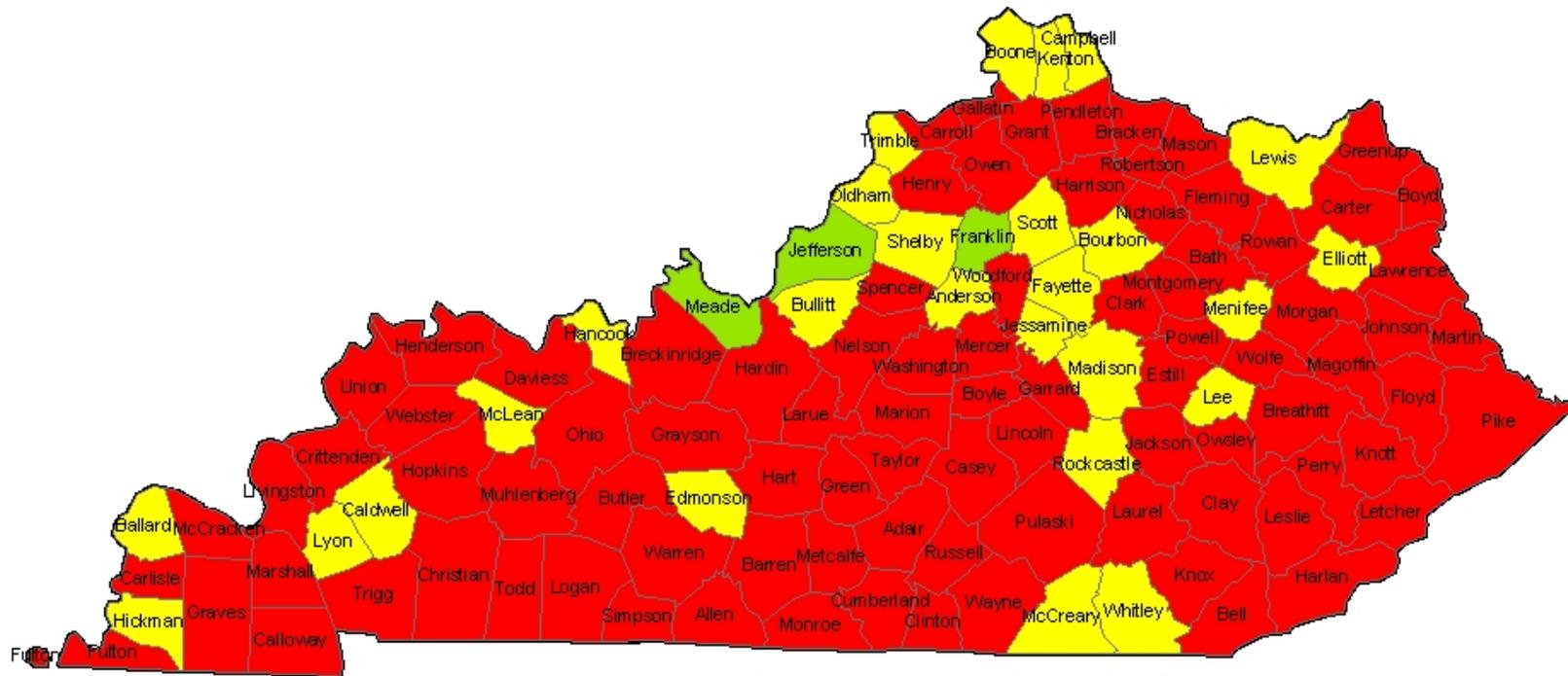






# Bacterial Pneumonia Admission Rate (PQI 11)

Based on Kentucky Hospital Inpatient Discharge Claims  
January 1, 2006 to December 31, 2006



National rate per 1,000 population\* is 4.18\*\*  
State rate per 1,000 population\* is 5.95

## PQI 11 Risk Adjusted Rates

(Considering Margin of Error)

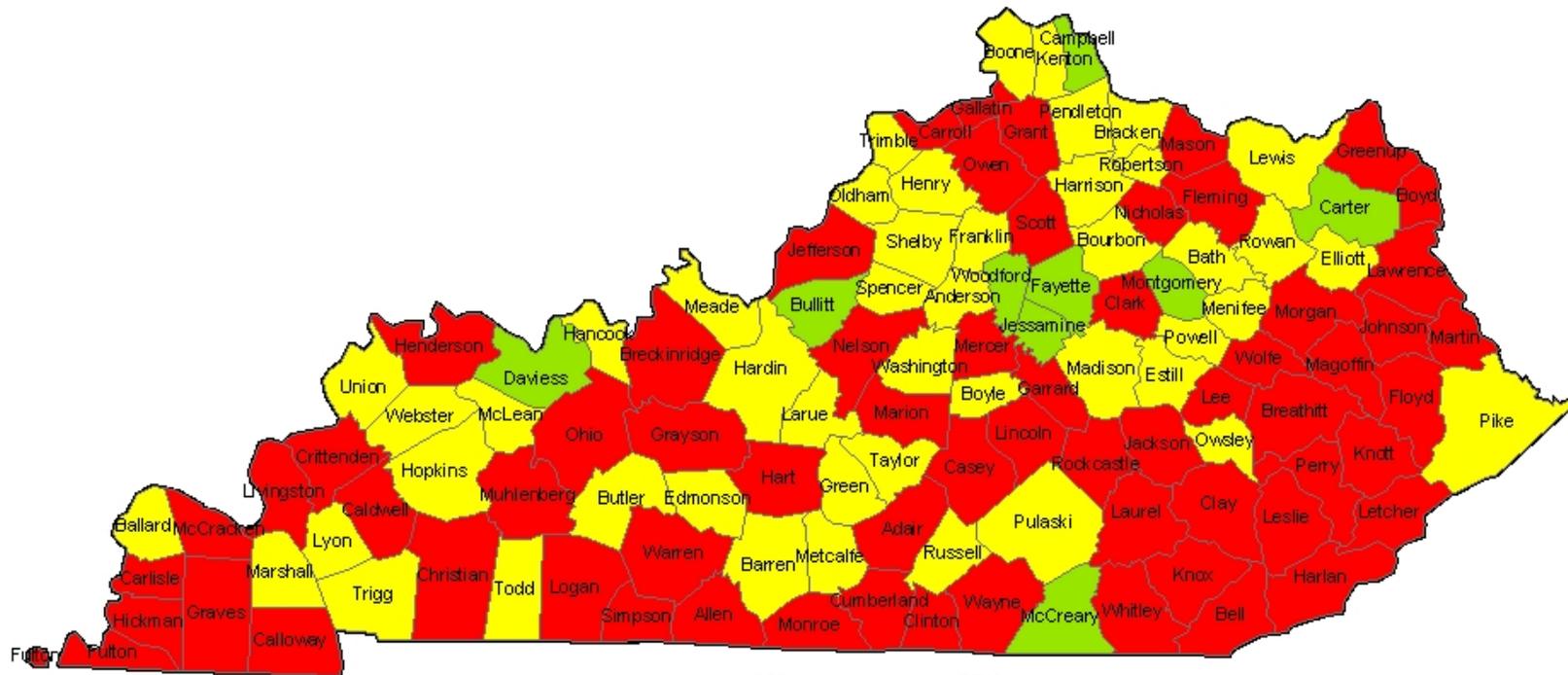
- Below National Rate
- Comparable to National Rate
- Above National Rate

\*Population age 18 years or older

\*\*Source: Nationwide Inpatient Sample, 2004, AHRQ Web Site: <http://www.qualityindicators.ahrq.gov>

## Urinary Tract Infection Admission Rate (PQI 12)

Based on Kentucky Hospital Inpatient Discharge Claims  
January 1, 2006 to December 31, 2006



National rate per 1,000 population\* is 1.77\*\*  
State rate per 1,000 population\* is 2.34

### PQI 12 Risk Adjusted Rates (Considering Margin of Error)

- Below National Average
- Comparable to National Average
- Above National Average

\*Population age 18 years or older

\*\*Source: Nationwide Inpatient Sample, 2004, AHRQ Web Site: <http://www.qualityindicators.ahrq.gov>

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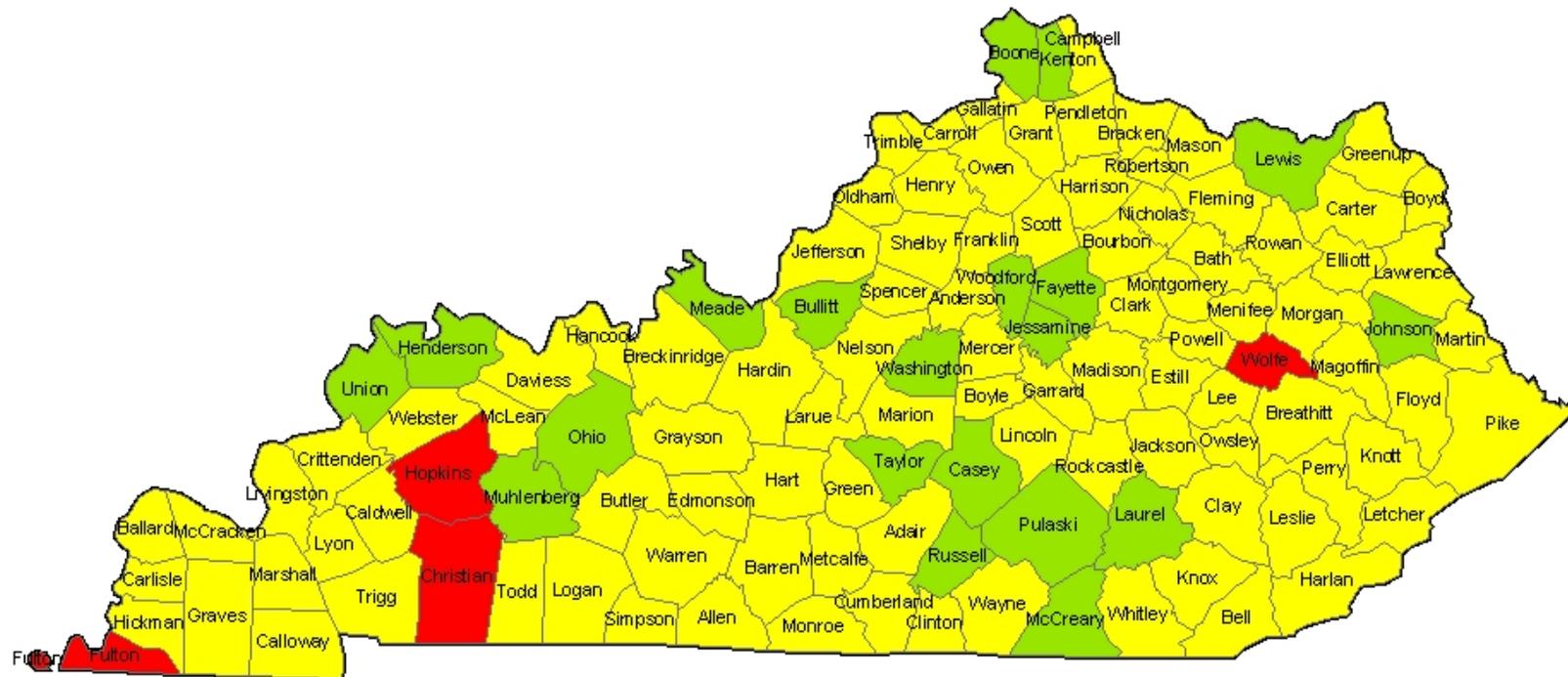






# Rate of Lower-extremity Amputation Among Patients with Diabetes (PQI 16)

Based on Kentucky Hospital Inpatient Discharge Claims  
January 1, 2006 to December 31, 2006



National rate per 1,000 population\* is .39\*\*  
State rate per 1,000 population\* is .32

### PQI 16 Risk Adjusted Rates (Considering Margin of Error)

- Below National Rate
- Comparable to National Rate
- Above National Rate

\*Population age 18 years or older

\*\*Source: Nationwide Inpatient Sample, 2004, AHRQ Web Site: <http://www.qualityindicators.ahrq.gov>





