# COMPUTED TOMOGRAPHY (CT) SCANNING
# IN THE FINGER LAKES REGION
# 2007

In April 2008, the Finger Lakes Health Systems Agency (FLHSA) conducted a survey of regional CT providers regarding capacity and utilization during calendar year 2007. The survey was completed by 23 of 25 providers in the nine-county Finger Lakes area, representing a response rate of 92 percent. In addition, 2 of 4 providers in the western counties completed the survey. This summary focuses primarily on the findings from the nine-county area.

Number, Distribution & Capability of Machines:

There were 36 CT scanners in the nine-county Finger Lakes region as of December 2007, including two replacement units that became operational in 2007 and new 64-slice units at Strong Memorial Hospital and Rochester General Hospital. Applications for acquisition of a 64-slice CT scanner were approved in 2007 by New York State and at the local level by the Community Technology Assessment Advisory Board (CTAAB) for Rochester General Hospital, Strong Memorial Hospital, and University Medical Imaging. However, a unit approved at the local level by CTAAB in 2007 at University Medical Imaging was not yet operational as of December 2007.

In addition, approval was granted for acquisition of a 64-slice CT scanner in the western region at United Memorial Medical Center in Batavia.

No applications have been approved in 2008 for additions to CT capacity in the region.

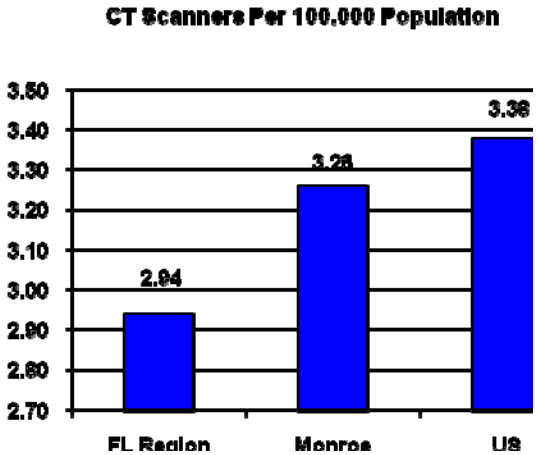
Of the 36 operational units in 2007, 24 (67%) are hospital-based, while 12 units (34%) are located at freestanding imaging centers. The distribution of CT scanners has remained essentially the same since 2006 as far as the type of site location. All of the 36 scanners in the region are stationary.

In terms of the diagnostic imaging capabilities of CT scanners in the Finger Lakes region, the majority of units (75%) are 16-64 slice machines and there is only one unit with fewer than 4 slices of simultaneous imaging. By comparison, the 2006 IMV National CT Survey estimates that only 34.3% of CT scanners nationally have 16-slice or greater capability.

Units per Population:

The 36 scanners in the region represent 2.94 scanners per 100,000 population. In contrast, there are an estimated 3.38 scanners per 100,000 nationally (Figure 1):

*Figure 1:* Comparison of CT Scanners in the Finger Lakes and U.S.




Data based on 2008 FLHSA Survey of CT Providers and 2006 IMV National CT Survey

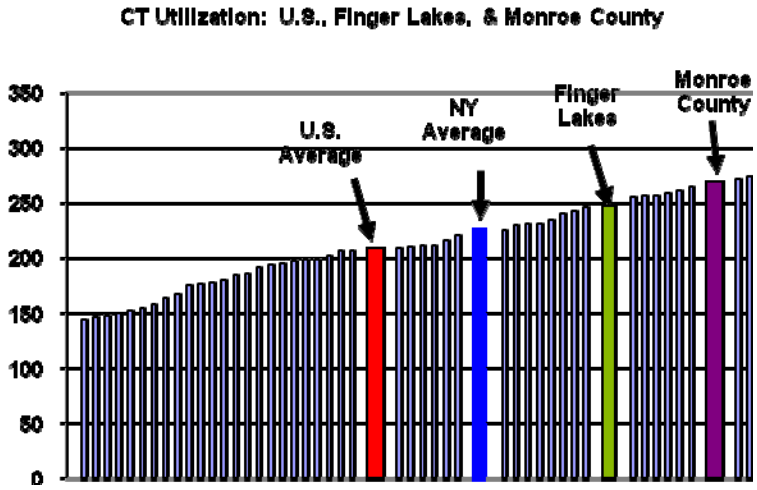
Despite having fewer scanners per capita than the national average, the technology in this region is newer. From the 32 providers that supplied this data, nearly half (47%) of the CT scanners in the Finger Lakes have been acquired since 2004, compared with only 38% nationally. All hospitals within the Finger Lakes region provide CT scanning services. The average wait time for emergent cases is 2.37 hours and 3.28 days for non-emergent cases, indicating relative ease of access to these services in this region.

Utilization per Capita:

During 2007, there were 301,053 CT scans performed in the nine-county Finger Lakes region; of these, 188,782 (62.7%) occurred in Monroe County. This reflects a utilization rate of 245.9 scans per 1,000 population regionally and of 267.8 CT scans per 1,000 population in Monroe County alone (ignoring patient migration).

Regional utilization in 2007 was 18.6% greater than the national use rate, which was estimated by IMV at 207.4 per 1,000 population in 2006. The highest utilization rate was for Monroe County, which exceeds the New York State average by 19% and the U.S. average by 29% percent. In fact, the county's use rate is higher than the rate in 45 states.

*Figure 3:* Comparison of CT utilization: Average for U.S., NY State and Finger Lakes region




Data Source: 2007 FLHSA Survey of CT Providers and 2006 IMV National CT Survey

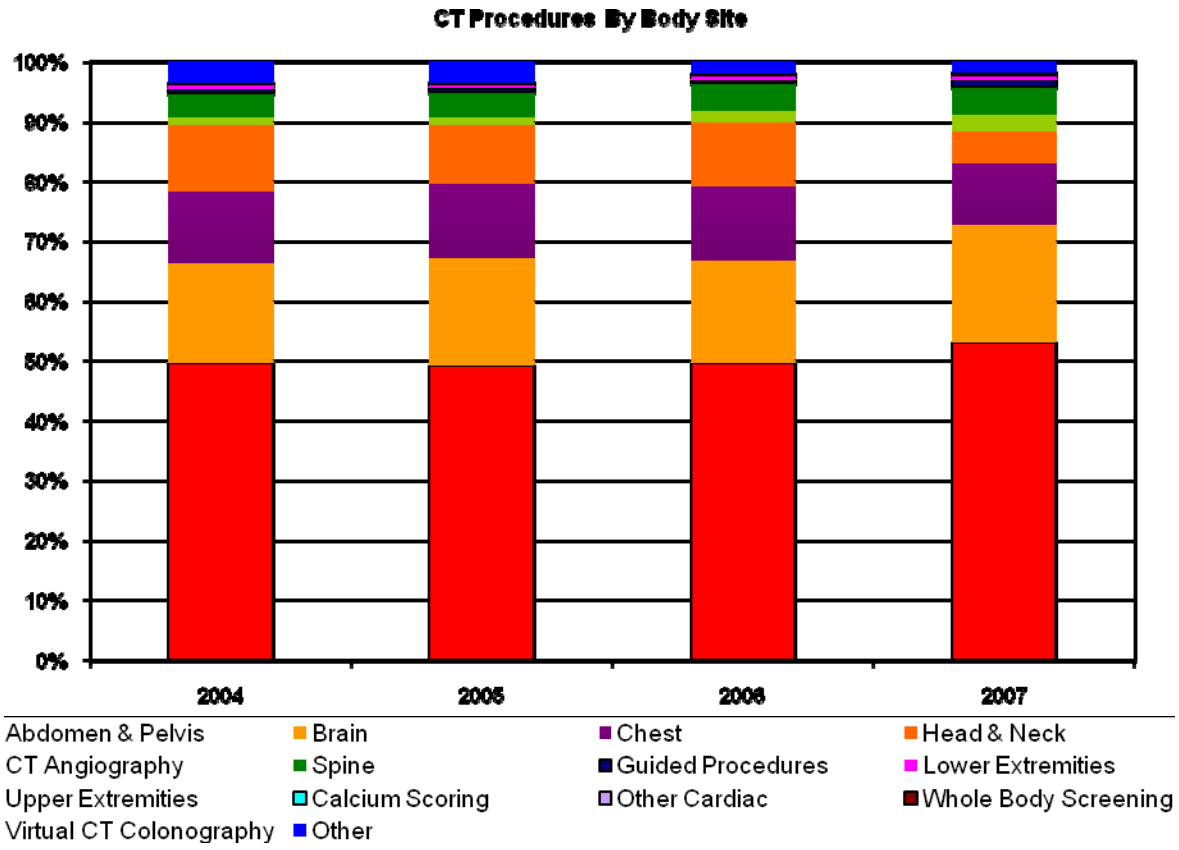
Trends in Utilization:

It is difficult to discern the overall trend in CT utilization in the Finger Lakes region because of incomplete reporting in earlier years. Recent data shows that CT utilization in Monroe County declined by 5% from 2006 to 2007, from 281.8 to 267.8 scans per 1,000 population. During this same period, CT utilization in the nine-county region increased by 1.8%, from 241.5 scans per 1,000 in 2006 to 245.9 scans per 1,000 in 2007. In terms of total numbers of procedures, there was a 1% reduction in CT scans performed from 2006-2007 in the region.

Types of CT procedures:

Compared with previous years, the percentage of CT scans performed on the brain, abdomen and pelvis increased in 2007. Scans of the abdomen and pelvis accounted for 52.9% of all CT scans in 2007, whereas these types of scans accounted for 43-46% of all scans performed from 2004-2006. In 2007, 19.8% of all CT scans were of the brain, while these scans comprised 14-16% of the total from 2004-2006. Throughout this period, the proportion of CT scans of the chest has remained the same (10.3 % in 2007 and 10-12% from 2004-2006). Scans of the head and neck declined significantly in 2007 as a proportion of all CT scanning (5.3% in 2007, 10-11% for 2004-2006). In 2007, all other types of CT procedures remained the same as a percentage of the total (9% in 2007, 10% for 2004-2006).

*Figure 4:* Comparison of CT Procedures by Body Site



The greatest growth in utilization from 2006 to 2007 was for cardiac procedures (896.1%), guided procedures (89.7 %), calcium scoring (72.6%), and CT angiography (59.3%), although these procedures continue to comprise a small percentage of the total. In terms of the number of procedures performed, CT scans of the head and neck and of the chest declined the most over the last year, 45.2 % and 7.1% respectively.

Revenue Sources for CT Scans:

Of the data received (21 of 22 survey respondents), 27.7 % of CT revenue in 2007 was from Medicare, while 53.4 % was from private insurance. Medicaid accounted for 9.7 % of the revenue for CT scanning in 2007, while the remaining sources (Workers' Compensation, private pay, and "other") amounted to 9.2% of total revenue. However, hospitals provided a substantially greater number of services to patients with Medicaid, as this comprised 11 % of hospital CT revenue, despite relatively low Medicaid reimbursement rates. In contrast, Medicaid accounted for only 2.6 % of CT revenue for freestanding imaging centers.

*Figure 5:* Percentage of Revenue from CT Scanning By Payer