

## Chicago Sacred Heart Hospital - Medicare Kickback Scheme

According to an April 16, 2013 [FBI press release](#), Chicago Sacred Heart Hospital Owner, Executive, and Four Doctors Arrested in Alleged Medicare Referral Kickback Conspiracy.

From the press release:

CHICAGO—The owner and another senior executive of Sacred Heart Hospital and four physicians affiliated with the west side facility were arrested today for allegedly conspiring to pay and receive illegal kickbacks, including more than \$225,000 in cash, along with other forms of payment, in exchange for the referral of patients insured by Medicare and Medicaid to the hospital, announced U.S. Attorney for the Northern District of Illinois Gary S. Shapiro.

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Arrested were Edward J. Novak, 58, of Park Ridge, Sacred Heart's owner and chief executive officer since the late 1990s; Roy M. Payawal, 64, of Burr Ridge, executive vice president and chief financial officer since the early 2000s; and Drs. Venkateswara R. "V.R." Kuchipudi, 66, of Oak Brook, Percy Conrad May, Jr., 75, of Chicago, Subir Maitra, 73, of Chicago, and Shanin Moshiri, 57, of Chicago.

**DocGraph Data** wanted to see what the graph of these doctors looked like in the DocGraph dataset. You can read more details about DocGraph from [Fred Trotter's post](#). The basic data set is just three columns: two separate NPI numbers (National Provider Identifier) and a weight which is the shared number of Medicare patients in a 30 day forward window. The data is from calendar year 2011 and contains 49,685,810 relationships between 940,492 different Medicare providers.

**Hadoop Data Processing** Using [Mortar](#) for online hadoop processing, Amazon S3 storage and access to the data, I wrote up a Hadoop script that filters the DocGraph data where any of the accused where the referring doctors, joined them to the National Provider registry and wrote the data out to an S3 bucket.

### Data Results

Looking at the data results, three of the doctors made referrals to Sacred Heart.

**Visualization** Using Gephi, I was able to visualize the referrals for these three doctors.

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While this doesn't provide a detailed look into the fraud, it does show there were referrals made to Sacred Heart.

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