LDI's National Database of Physician Networks in 2014 Marketplace Plans

The high cost of health insurance remains a major barrier to achieving the coverage goals of The Affordable Care Act (ACA), even after factoring in subsidies provided through the Health Insurance Marketplace. The ACA regulations that foster a fair and competitive marketplace also limit insurer's ability to implement cost-saving techniques, and, consequently, offer lower-cost plans. The use of 'Narrow Networks' is one of the few remaining strategies open to insurers. As a consequence, they have become prevalent in the Health Insurance Marketplace. The growth in narrow networks and their ubiquity in the Marketplace has generated many questions for researchers, policymakers, and regulators that can be answered with better data.

With funding from the Robert Wood Johnson Foundation, a research team from the Leonard Davis Institute of Health Economics at the University of Pennsylvania aimed to create a database of all physician provider networks connected to health plans sold in the Health Insurance Marketplaces in 2014 operating in all 50 states and Washington D.C.

Methods for creation of database
We identified 395 unique provider networks offered by 267 different issuers across silver plans sold in the marketplaces for all 50 states plus DC as provided by HIX Compare. In the fall of 2014, we used the publicly available provider directories on the issuer websites of individual marketplace-based insurance networks and plans to gather all providers in these specified networks. More details on this process for gathering and cleaning these data are available in LDI Data Brief "The Skinny on Narrow Networks in Health Insurance Marketplace Plans."

We were successful in obtaining physician network data for 342 networks representing 243 unique issuers in 1,105 unique plans. From our integrated and standardized provider directory, we created summary files of counts of physicians. We count the total number of physicians within the market and the number that were identified to be participating in the network. We provide these counts at two levels. The first level is for the entire network within a state and the second is for a rating area for each plan sold on the 2014 Marketplace. A rating area is a geographic area that is typically a collection of counties defined by a state in which premiums for plans may vary. These data are downloadable on the right-hand side of the page, including the data dictionary, this text (the 'Readme' file), and the data in EXCEL formats. The data is also available in STATA. Researchers who prefer to have the data in Stata format should contact Ellen McGeoch. The raw data used to create these files are available to qualified researchers who obtain these data through a Data Use Agreement. See below for details.

Note that our method for counting a physician avoids double counting a physician who may be located in multiple locations by dividing that physician across all locations. For example, a physician in three locations would be counted as a third of a physician in each location. Also note that we grouped physicians into 48 unique specialty groups. Physicians listed in multiple specialty groups were assigned into a single specialty group based on the specialty group that appeared the most times in the data for that physician.

Details on Network-level file – HIX2014_NetworkDocs
For the 342 networks, the HIX2014_NetworkDocs file provides counts of physicians overall and within each of the 48 specialty groups. A unique observation is defined by the variables *state, issuer, and network* or, equivalently, *network_id*. Note that we provide two counts of physicians for each of the 342 unique networks. One count, designated by a '_n' at the end of the variable naming convention, is the count of physicians participating in that network within the state. These counts do not include physicians located outside of the boundaries of the state (or outside of the boundaries of the rating areas where plans are sold with that network). The other count, designated by a '_m' at the end of the variable naming

convention, is the count of physicians in the market in which that network operates. For a network that is connected to plans sold in all rating areas within the state, this count represents the total number of practicing physicians in the state. For a network that is connected to plans that are only sold in a limited number of rating areas in the state, this count will represent the number of practicing physicians in those particular rating areas.

Details on Plan/rating area-level file – HIX2014_NetworkDocs_byPlan
For the 6,453 unique plan-rating areas, the HIX2014_NetworkDocs_byPlan file provides counts of physicians overall and within each of the 48 specialty groups. A unique observation is defined by the variables *state, issuer, network, PLANNAME, PLANID, and ratingarea*, or, equivalently, *planid and planeara_id*. A network may be attached to multiple plans offered within a rating area. As in the network file, we provide two counts. One count, designated by a '_n' at the end of the variable naming convention, is the count of physicians participating in the network attached to that plan within that rating area. The other count, designated by a '_m' at the end of the variable naming convention, is the count of physicians in that rating area.

Merging Plan information onto plan/rating area-level file
Plan characteristics, such as premium, copay, coinsurance, and deductible, are available in the Breakaway data, a dataset gathered by Breakaway Policy Strategies and housed by RWJF. This data contains plan characteristics for both 2014 and 2015 exchange plans, for a total of 16,770 observations across the two years. For researchers interested in utilizing 2014 network information jointly with 2014 plan characteristics, the two datasets can be merged using the plan rating area level version of the network data and merging in the machine-readable version of the breakaway data. Specifically, the following command will merge the files in Stata:

> *merge 1:1 CARRIER PLANNAME PLANID UNIQUEID AREA YEAR using*
> *"RWJF_20142015Silver_merged_cleaned_3-28-15.dta"*

All 6,453 observations from the network data will merge with the breakaway data. The observations from the breakaway data that do not match were either for plans in 2015 or plans whose network information we were unable to obtain.

Calculating Network Size
The size of an insurance network can be obtained by dividing the count of providers in a given network by the count of providers in the underlying rating area.

Obtaining Raw Data File
The raw data used to create these files is available to researchers under certain restrictions. All researchers must apply by contacting Ellen McGeoch.