FutureDocs **Forecasting Tool** Fact Sheet

Estimating the supply of physicians, use of healthcare services, and capacity of physician supply to meet the health care services use for the United States population, 2011-2030
https://www2.shepscenter.unc.edu/workforce

Overview of the FutureDocs Forecasting Tool

- The FutureDocs Forecasting Tool estimates the supply of physicians, use of healthcare services, and capacity of physician supply to meet the health care services use for the United States population from 2011 to 2030.

- The tool is designed to engage physicians, physician organizations, policymakers, health system executives and others in addressing imbalances in the supply and distribution of physicians. Since the tool produces estimates at both the state and sub-state levels, it is useful for shaping health workforce policy and planning at the local, state, and national levels.

- The tool was developed by the Cecil G. Sheps Center for Health Services Research at the University of North Carolina-Chapel Hill and funded by The Physicians Foundation. The North Carolina Medical Society Foundation collaborated on the project.

Why it Matters

- The tool is an important step forward for health care workforce modeling because it is interactive, web-based, and user-friendly. It also models data for sub-state geographic areas.

- It provides the option to implement different scenarios, such as the Affordable Care Act's insurance exchanges and Medicaid expansion provisions.

- The statistical model that underlies the tool is innovative because it reflects the real-world nature of clinical practice, in which physicians in different specialties have overlapping scopes of service provision.

- The tool will be updated to incorporate new data sources and to reflect changing population demographics, physician practice patterns and health care policy

Specific Components of the FutureDocs Forecasting Tool

The statistical model that underlies the FutureDocs Forecasting Tool can be divided into three parts: healthcare services use, physician supply, and "plasticity."

- ***Healthcare service use:*** The healthcare services use component estimates population-level healthcare services use based on population characteristics, such as age, and risk factors, such as obesity. The model measures healthcare services use in terms of visits across 19 different types of conditions and within the hospital inpatient setting, the outpatient setting, and the emergency department.

- ***Physician supply:*** The physician supply component produces estimates of physician supply using information on physician and resident-in-training characteristics; physician migration patterns across states; and mortality and retirement rates. The model produces estimates of physician supply in both headcounts and physician full-time equivalents (FTEs) by age, gender, specialty, and geography.

- ***Plasticity:*** Supply and healthcare services use estimates are compared through "plasticity," the model's third component. "Plasticity" describes the idea that there are multiple configurations of healthcare providers able to meet a community's use of healthcare services. Plasticity allows the model to convert physician FTEs by specialty into visits to determine "relative physician capacity" in a geographic area. "Relative capacity" is the model's way of describing whether or not a geographic area faces a shortage or surplus of physician visits by clinical condition and healthcare setting.

Figure 1. The different parts of the model underlying the FutureDocs Forecasting tool
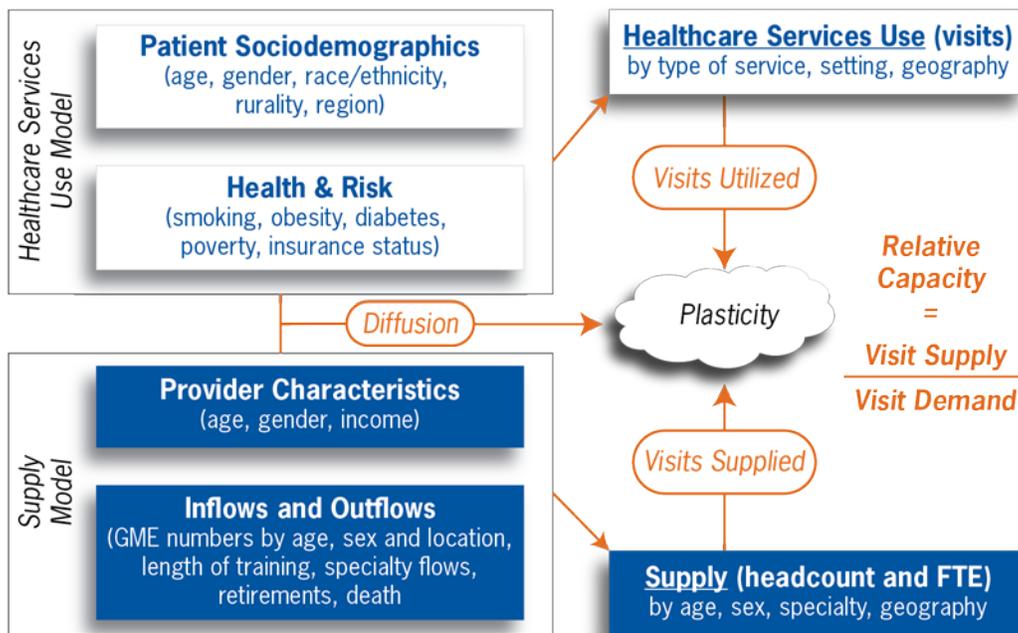
How to use the FutureDocs Forecasting Tool website

- The FutureDocs Forecasting Tool website provides many options for visualizing data under different scenarios to see the effect that different "potential futures" might have on physician supply and the demand for health care services. Maps and line charts can be used to view estimates of physician supply, use of health care services, or physician capacity.

- Physician supply estimates can be examined by age, sex, and specialty using the website's population pyramid function. These visualization options are available at the both the state and sub-state levels and for all years between 2011 and 2030. Maps, line charts and population pyramids can be downloaded for use in presentations, reports and policy briefs.

- The website can be accessed at: https://www2.shepscenter.unc.edu/workforce/index.php.