US-01

Swimming Upstream: A Workforce Model that Does Not Project a Physician Shortage in the United States

E. P. Fraher[1], A. Knapton[2],

[1]Cecil G. Sheps Center for Health Services Research, Chapel Hill, NC;
[2]SMAP, Winchester;

Objective: The purpose of this poster is to demonstrate how the FutureDocs Forecasting Tool (FDFT) can be used by policy makers to plan for the future health workforce needed to meet the demand for 19 different types of health care services in 293 local service areas in the United States. Special attention will be given to discussing how the model can be adapted to health systems in other countries. The poster will be supplemented with a live demonstration that allows users to 'drive' the model to answer their specific policy questions.

Methods: The FDFT was developed by researchers at the University of North Carolina at Chapel Hill in collaboration with Andy Knapton in the United Kingdom. The project came about as the direct result of collaborations developed between the two countries at past IHWC conferences. Many past modeling efforts, including those from Health Resources and Services Administration and the Association of American Medical Colleges, have provided only national estimates of physician shortages by specialty which mask significant variations between areas and treat each specialty as a separate silo. The FDFT model estimates supply, utilization, and surplus/shortage at the national, state and sub-state level. Workforce modeling at smaller levels of geography produces forecasts that: 1. account for different patterns of health care use between different communities; and 2. acknowledges that different communities will have varying physician specialty configurations to meet patients' use of care. This concept, known as "plasticity", means that while endocrinologists might see most endocrine visits in urban areas, in rural places with fewer specialists, general internal medicine and family physicians might field the majority of endocrine visits.

Results: The model suggests that the overall number of physicians in the workforce will be sufficient to meet demand in 2030 but that there will be shortages in certain geographic areas and surplus physician capacity in other areas. The model forecasts that most geographic areas will face a shortage of physicians to meet the demand for circulatory and preventive care services.   The supply model shows rapid growth in the specialty workforce and a shrinking generalist workforce. For example, the pediatric surgical workforce will more than double by 2030 but the nation will face a 12% decline in general internal medicine. The model includes numerous scenarios that allow users to see the effect of different possible "futures", including the effect of Medicaid expansion, changes to graduate medical education, use of Nurse Physicians (NPs) and Physicians Assistants (PAs), and changes in hours worked and retirement age.

Conclusion: The FDFT makes a significant contribution to health workforce planning by giving workforce stakeholders the data they need to understand workforce supply, the utilization of health care services and the capacity of the workforce to meet demand at the local level. Armed with this information, they can develop workforce policies, including new ways of delivering health care services, which address local health workforce challenges.