

Methodology/Approach: We develop queueing models for these NP utilization models, of which the parameters are extracted from literature or government reports. Appropriate analyses are conducted to generate formulas and values for the productivity and cost-efficiency.

Sensitivity analyses are conducted to investigate different scenarios and to verify the robustness of findings.

Findings: The productivity and cost-efficiency of these models improve significantly if NPs have access to MA support in serving patients. Based on the model parameters we use, the

average cost of serving a patient can be reduced by 9-12% if MAs are hired to support NPs.

skill deflation

Such improvements are robust across practice environments with different variability in provider service times. Improving provider service rate is a much more effective strategy to increase productivity compared to reducing the variability in provider service times.

Practice Implications: In order to contain costs and improve the utilization of NPs in primary care settings, MA assistance for NPs is necessary.