

“Physician workload and treatment choice: the case of primary care”

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Abstract: We examine how primary care physicians' treatment choices respond to physician workload, using detailed administrative data from eleven clinics of a large Israeli HMO. We use absences of colleagues at the clinic as a source of an exogenous increase in the physician's workload. Using a standard homogeneous-effects linear model, we find that physician time and utilization of diagnostic inputs are complements: during face-to-face visits, a one minute decrease in average (daily) visit length causes a 9 percent decrease in referrals to specialists, and a 3.8 percent decrease in referrals to lab tests. We find much smaller effects on the choice of treatment prescribed during the visit: our results imply no significant impact of workload on referrals to the emergency room, or on the prescription of painkillers, though there is some evidence that higher workload causes an increased prescription of antibiotics. Finally, when physicians experience higher workload they decrease the amount of non face-to-face encounters with patients. Our results are robust to relaxing the linearity and homogeneous-effects assumptions: following Manski and Pepper (2000), we compute nonparametric bounds on the Average Treatment Effects, resulting in qualitatively similar findings. Relaxing the exogeneity assumption of the instrument following a Monotone Instrumental Variable approach also results in similar conclusions. Our analysis provides important lessons to insurers and policy makers alike, as they reveal the channels via which practitioners respond to increased pressure brought about by limited capacity (the "primary care crunch"). In particular, we confirm that increased workload impairs primary care clinicians' ability to deliver preventive care, one of the key aspects of managed care health systems.