
How Seeing a Regular Doctor Improves Primary Care



By Michael Freeman , INSEAD

In primary care, patient-doctor continuity not only brings positive health outcomes, but also productivity benefits.

It is well documented that a sustained therapeutic relationship between a patient and a doctor is valued by both patients and doctors alike. Surveys also highlight the health benefits and improved management of health conditions for patients who have an ongoing therapeutic relationship with the same primary care physician, known as relational continuity.

Yet, continuity is tricky in practice when the healthcare system is under strain. In the United Kingdom, as in many other developed and developing countries, the increase in demand for primary care, coupled with a shortage of primary care physicians, mean that patients are more likely to be assigned to doctors **based on their availability** rather than their “regular doctor” with whom they have relational continuity.

To better tackle the healthcare labour crunch, understanding the productivity effects within the primary care setting is key. While previous large-scale studies have analysed hospital visits, this is the first to focus on primary

care. Together with my co-authors, Harshita Kajaria-Montag and Stefan Scholtes from Judge Business School, we conducted a **study** to investigate if increasing continuity of care could improve physician productivity in primary care.

Insights from the ground

Productivity of primary care physicians typically encompasses the quality of care provided to patients and the number of patients served. In primary care, where patients often have their preferred regular doctor, these two dimensions are related. When physicians provide quality care to their regular patients, not only are there proven health benefits to the patients, but it can also reduce demand for consultations, thereby increasing the number of patients the physicians can attend to.

To investigate whether continuity of care translates to similar productivity gains, we defined our primary measure of productivity as the “revisit interval”, which refers to the length of time between consecutive consultations. We hypothesised that increased patient-doctor continuity will extend these intervals, meaning that patients would require consultations less frequently.

Using statistical models, we analysed primary care data from over 11 million face-to-face consultations between over 14,000 primary care physicians and 1.8 million patients in 381 English primary care practices. Based on data spanning over 11 years, this is the first large-scale empirical investigation into the relationship between continuity of care and physician productivity.

Upside of continuity

Our study provides evidence that consultations between a patient and a primary care physician are more productive if the physician is familiar with the patient, which effectively saves primary care resources. Specifically, when patients see their regular doctors, the interval between consultations increased by an estimated 18.1 percent. We also found that their consultation duration is, on average, marginally shorter.

Our findings indicate that this productivity benefit of continuity is uneven, with statistically significant increases in revisit intervals for older patients, patients with more than one chronic disease, or patients with mental illnesses. Therefore, targeting the right patients for continuity of care is

important. In practice, our estimation models can be used as scoring tools to identify patients for whom continuity of care offers higher productivity benefits.

Further, we used our model to compute the potential impact continuity of care could have on consultation demand. We found that if all practices in the dataset had offered continuity of care to approximately 75 percent of their consultations and prioritised patients who are elderly or those with chronic disease or mental illness, total consultation demand could decrease by up to 5.2 percent.

Continuity of care in practice

While our study shows that continuity of care comes with benefits, it is not always prioritised in practice. In the UK, for instance, to manage the labour crunch in the primary care sector, policies are prioritising access over continuity. In other words, patients are assigned to doctors who are available instead of doctors who have seen the patient most regularly in order to deal with on-the-day demand.

Fundamentally, there are two prevalent operational mindsets to address the chronic shortage of primary care doctors. The first is to industrialise primary care to maximise the number of consultations per doctor per day, with the goal of fast and convenient access to a primary care consultation – no matter with whom. The second recognises the value of continuity of care and focuses on the relationship between doctors and patients, such that practices are organised around providing access to “your primary care doctor”.

The first mindset, which focuses on daily throughput and fast access, can disrupt continuity. Our findings suggest that this mindset is counter-productive, as it both harms the doctor’s productivity and generates avoidable demand for future consultations. Moreover, studies have shown that increasing the availability of primary care actually drives up demand. At the same time, the random assignment of physicians based on availability reduces continuity of care.

Clearly, the trade-off between access and continuity must be managed. Against the backdrop of the primary care shortage, offering continuity of care to all patients is easier said than done. But our study offers important insights: increasing the percentage of patients seeing their regular doctor, with priority given to groups that will benefit from it the most, can help

alleviate the strain on primary care practice in the real world. Continuity of care can improve productivity, especially when it is implemented where it matters the most.

Find article at

<https://knowledge.insead.edu/operations/how-seeing-regular-doctor-improves-primary-care>

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Michael Freeman is an Assistant Professor of Technology and Operations Management at INSEAD.

About the research

"[Continuity of Care Increases Physician Productivity in Primary Care](#)" is published in *Management Science*.

About the series

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