

# Chapter 10

## General Practitioners' Adoption and Use of ICT

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### ABSTRACT

*The influence of ICT in General Practice varied from a solo practice to a GP specialist of a primary healthcare team. Different factors influence the GP to use ICT. After 2nd World War the national legislative requirement influenced more to adopt ICT, of which most important is the Medicare or Medicaid payment and also the richness of the environment (measured by network readiness index). Shift to group practice or corporate level practice requires ICT support to handle automated actions (i.e. completing repetitive jobs, answering frequently asked questions by webpage). Role of telecommunication and IT service providers, and that of entrepreneurs for information management are also discussed. While discussing the challenges in implementing ICT in future model of GP service it focuses on the slow usage of computer and other IT products by doctors, as noted in the past decades.*

### INTRODUCTION

This chapter will explore the use of ICT in General Practice of Doctors in healthcare system. In doing so, it will first identify the role of general practitioners in the modern healthcare system, particularly in primary healthcare (PHC), and then demonstrate the role of ICT to improve the quality of those roles and the adoption of ICT by the practitioners in the present time. The issue will be discussed in the context of changing role of general practitioners, from a solo private practitioner to a team member of a broader primary healthcare system.

When we talk about General Practice (GP) in developed capitalist or socialist countries it refers mostly to medical graduates from colleges teaching allopathic regime but what about traditional medical healers, ayurvedic and homeopathic practitioners. As it is hard to collect accurate data on this issue this chapter will focus on modern allopathic practitioners only, even though there is evidence that other groups are also utilising some of the benefits of ICT.

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General practice has a familiar concept in developed countries but how far it applies to other countries where it might also be known as family physician or private physician. Today in many countries, like US, UK, European Union, Australia & also some Asian & African countries, GP is a speciality. Medical graduates now have to complete fellowship programmes before being considered as general practitioner (Simon 2009). As a practitioner they are no more the sole decision maker about a client as they are a team of primary health care service. GPs are now gatekeeper of the health service.

Information technology is becoming an integral part of many services including health service. Different factors influence the general practitioner to use ICT in practice. After the Second World War most important factor is the national legislative requirement to adopt certain electronic media to gain funding or to participate in incentive programme. In developed countries adoption of ICT is more influenced by richness of the environment which could be measured by different indicators like network readiness index (NRI) and priorities of national policy. Increasing influence of ICT also increasing the cost of running business which is driving GPs to group practices instead of solo practice, some are even moving to corporate level functioning.

In underdeveloped countries among several factors adoption of technology depends on the proven advantage of the technology along with its cost-effective accessibility in the service. So, this chapter also looks into the factors influencing the acceptance and deterrence of ICT in practice in reference to developed and underdeveloped countries perspective. This growth also allures other entrepreneurs to form partnership for information management. Telecommunication and IT service providers like Telstra or others have come forward to introduce products for tele-health.

It will also focus on challenges in implementing future development of ICT in general practice. One important challenge is the slow usage of computer and other IT products by doctors.

Hope this chapter would be of interest to IT Specialists, healthcare professionals, and Business Managers in Healthcare Organisations, academics: undergraduates, postgraduates, and researchers involved in healthcare sector.

## **INTRODUCTION**

Until the mid-1900 medical graduates had the option to join an institution or to work on their own at their preferred area, with very little or no obligation to any legislation but the ethics. Even if physicians were working at institutions they were private practitioners at some time of their life. Almost all doctors were in general practice (GP) with duties in medicine, surgery or other specialities with a sign of "Physician and Surgeon" at their door and as a solo practitioner (Bryan, 1971; Plianbangchang, 2011). Earlier GP service was not totally regulated by any national programme, even though there might have weak professional bodies like general practitioner's forum. As there was no legislative control so in some instances complexities arouse among practices resulting from professional jealousy e.g. criticising publicly about one's ability to diagnose measles (Bryan 1971). Doctors were more interested to treat a person rather than maintaining records. Doctors' prescription was in many cases nothing but a scribble on a paper, only deciphered by pharmacists. Over time there were questions about the legibility and completeness of the handwritten prescriptions (Albarrak AI et.al, 2014). Even though the practice changed in developed socialist countries in most underdeveloped countries GP service is still direct fee for service, where client pay upfront. Initially GP service was driven by business interest and clinical skill with little interest in management quality (Jowett & Danielyan, 2010).

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