

## Chapter 37

# ICTs and Family Physicians Human Capital Upgrading: Delightful Chimera or Harsh Reality?

**Aurora A.C. Teixeira**

*Universidade do Porto; INESC Porto, Portugal*

**Teresa Dieguez**

*Universidade do Porto, Portugal*

### ABSTRACT

*The authors provide a quantitative assessment of ICTs role in general practitioners (GPs) medical daily practice and scientific performance. They focus on the Portuguese underexplored context, where the health sector has been under pressure for wide and profound reforms. These reforms have been extensively relying on ICTs, namely on the Internet. Based on the responses of 342 GPs, the authors concluded that 94% uses the Internet and 57% agrees that the Internet is essential to their medical daily practice. GPs tend to use the Internet mainly for professional purposes. Our data shows that the Internet for the respondent GPs has a critical role on updating and improving their professional knowledge basis. They recognise, however, that the vast majority of GPs lack specific and general training in ICT-related technologies. Such training handicap uncovers that a large part of Portuguese GPs may be unable to reap the benefits of ICTs in their daily medical practice.*

### INTRODUCTION

General Practice/Family Medicine is an academic and scientific discipline with its own educational content, research, evidence base and clinical activity as well as a clinical specialty orientated towards primary care (WONCA, 2002). General Practitioners/Family Doctors (GPs) should have special communication skills since he/she has to inform patients of their diseases

and treatment options in a way that is adjusted to each individual patient who is part of a community. This interrelationship, full of responsibility, commitment and know-how, should guide and be reflected in the development of related agendas for teaching, research and quality improvement. This is a consequence of the impact and crucial role played by these professionals in the economy and subsequent welfare. GPs invest considerable personal commitment and energy in a wide spectrum of interventions (De Maesener & De Sutter, 2004).

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Research and updated knowledge of GPs are crucial (Seufer & Seufer, 2000) as they have to up live up, not only to their patients' expectations, but also to their peers'. Fulfilling this goal, however, is rather complex. Any research in this domain must consider several dimensions and foci and bear in mind the specificities of the General Practice. The framework presented by De Maesener & De Sutter in the *Annals of Family Medicine* (2004) describes quite interestingly the different research questions where factors such as basic knowledge, problem-solving approach, practice implementation, policy context and education can cross through dimensions like structure, process and outcome.

Information and Communication Technologies (ICTs) in general, and the Internet in particular, have been recognized for many years as an important, albeit also worrying, mechanism for the transformation of medical care (Kassirer, 1995; Silberg et al., 1997; Gingrich & Magaziner, 2000; National Research Council Networking, 2000; Purcell et al., 2002; Blumenthal, 2002; Clark, 2006). While questions remain about its limitations (Kleinke, 2000), its concerns regarding misinformation (Impicciatore et al., 1997; Culver et al., 1997; Pealer & Dorman, 1997; Wyatt, 1997; Griffiths & Christiansen, 2000; Purcell et al., 2002; Meric et al., 2002) and its potential difficulties with the confidentiality of personal information (Pennbridge et al., 1999; Fox et al., 2000), the Internet appears promising as a means to disseminate information about health and health care, to enhance communication and facilitate a wide range of interactions between patients and the health care delivery system. Therefore, continuing efforts to maximize this tool's potential could be of great value (Baker et al., 2003). The Internet can provide other means of disseminating information such as practice guidelines to physicians in different specialties caring for patients with similar medical problems as well as possibly reduce practice differences (Eitel et al., 1998). It can provide immediate access to clinical

protocols, authoritative textbooks (Kassirer, 1995) and peer-reviewed medical journals, consultation with specialists and continuing medical education (Ellenberger, 1995).

Notwithstanding, few data concerning Internet users is available in the medical literature to provide guidance on this medium's development for physicians (Eitel et al., 1998). As more physicians gain familiarity with the Internet, it is expected that they will integrate it into their clinical practices (Eitel et al., 1998). For these reasons, it is crucial to carry on a study focused on the relation between the use of such technologies and the scientific and daily medical activity performance by GPs. In fact, that might enable them to devise adequate policy responses as far as training is concerned.

Therefore, this paper aims at providing a quantitative assessment on the role of the Internet in GPs medical daily practice and scientific performance. It focuses on the Portuguese underexplored context, where the Health Sector has been under pressure for wide and profound reforms, namely at the base of the system – Health Centres – with GPs representing the bulk of the medical staff. Such reforms have been extensively relying on ICTs in general and the Internet in particular. Thus, it is timely and pertinent to carry out an objective assessment on GPs' behalf on the usefulness of such technologies for their medical daily practice and scientific performance. At the same time, it should focus on the problems they eventually face regarding the use of these technologies and potential span for training actions at this level.

In the following section, a comprehensive overview of the literature is provided on the role of ICTs for human capital upgrading, focusing particularly on GPs. After a methodological section where we detail the procedures for implementing data gathering and describe some demographic characteristics of the respondent sample, we provide a quantitative assessment of the importance of ICTs for the Portuguese GPs as well the reasons for the Internet usage. Afterwards, the heterogeneity of GPs profiles according to the

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