Chapter 5

The Importance of Information and Communication Technologies in Establishing Healthcare Services with a Universal Coverage

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ABSTRACT

One of the most important challenges faced by the healthcare system is the organization of healthcare services to cope with the increase in population and aging of citizens. Especially in developing countries, demographic movements of the population, regional disparities, political concerns, and increasing expectations of health services have led to a search for new ways to serve all of the population with healthcare services. With traditional methods, it is not possible to increase the supply of health services because of inadequate infrastructure and shortcomings in quantity and quality of healthcare staff. This new health system called e-health and uses all of the possibilities provided by information and communication technologies that aim to improve public health. In this chapter, the effects of e-health practices on the quality and accessibility of healthcare services are assessed and the extent of e-health practices in Turkey are evaluated.

INTRODUCTION

One of the most important problems occurring in offering healthcare services is that the organization of healthcare services becomes difficult due to increase in population and aging effect. Especially in the developing countries, such reasons as demographical waves in population, geographical distribution of population, regional development differences and political concerns and increase...
in expectation from the healthcare services have
lead developing countries into looking for ways
of re-structuring the healthcare services to include
everybody. In reality, these countries don’t have
an established healthcare services system and
this structure is not possible due to increasing
demand of healthcare services via traditional
methods, inefficient health infrastructure, and
lack of qualified healthcare staff and inefficient
funds of these countries.

At this point, technological developments
present new solutions offering to meet the men-
tioned inefficiencies. The use of information
and communication technology, which is rapidly
developing especially since the beginning of the
21st century in the field of healthcare services,
helped eliminate many problems related to the
offering of healthcare services and also enabled
people living in the developing countries to
reach healthcare services. Communication
opportunities provided by these technologies
have important functions in eliminating the
disadvantages resulting from geographical dis-
tances, regional development differences and
health infrastructure. Especially the increased
use of mobile telephones and internet in the
last decade resulted in the healthcare services
being re-organized via using these technological
infrastructures. This increase has also enabled
governments and non-governmental organi-
zations to reach disadvantaged regions and
people living in these regions via using these
opportunities of information and communica-
tion technologies.

The new understanding of healthcare services,
referred to as e-health, aims to improve individual
and public health by means of using all the oppor-
tunities provided by the information and commu-
nication technologies. Especially the applications
of tele-medicine and m-health increase the quality
of healthcare services in the developed countries
and also these applications are presenting a role
model to realize a universal healthcare system in
the case of developing countries.

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The most important issue discussed in the field
of healthcare services is whether it is possible to
develop a system from which every person is able
to benefit. Especially, in many of the developing
countries, which do not have an established health-
care system, a significant rate of the population
cannot reach the healthcare services or they have
to pay for the use of healthcare services due to
not having efficient social security. This situation
causes the poor and disadvantaged people to be
deprived of the healthcare services and also harms
public consensus.

The main equity principle for the use of
healthcare services is to enable all the citizens to
access the healthcare services equally through the
existent health institutes (public and private) of
the country (NERA, 2009, p. 8). The concept of
health is of equal importance for all people. The
fact that people are poor or rich and they live in
rural or urban area does not create a difference in
their needs of health services. However, especially
in the developing countries people living in urban
areas with a high financial ability benefit from
healthcare services much further compared to
people living in the rural areas. People living in
urban areas also know the procedure to reach the
healthcare services better and so they can easily
reach both public and private healthcare services.
In fact, low cost investments on basic healthcare
services made by governments can increase the
general healthcare conditions and healthcare
development of the country. However, especially
in the developing countries, it has been seen that
already limited health funds are used mostly for
expensive technologies and urban areas (Akin
&Ferranti, 1988, p.2).

The concept of globalization that became a
slogan with the statement of “new world order”
after 1980 lead nearly all countries to transform
their economic and political structures with the
prediction that nearly all of the countries cannot