Summary of 'E-health in Sight'

advisory report

Introduction

The Minister of Health, Welfare and Sport has asked the Council for its advice on current forms of and future devel-opments in e-health, on the relevant threats and opportunities and on the measures to be taken by the government and prac-titioners in the field in order to exploit opportunities and re-duce threats. In this advisory report e-health as defined as the use of new information and communication technologies, especially Internet technology, to support or improve health and health care.

This advisory report is a follow-up to the advisory report ' Patient and Internet' published by the Council in March 2000. That report focused on the possibilities for the use of new information and communication technologies, especially Internet technology, in the provision of care.

Facts

E-health offers major opportunities. These include the possi-bilities for improving the quality, efficiency and accessibility of care. In particular this stems from the capacity of e-health to provide the care-provider at the right time and in the right place with the information he or she needs to perform their task. In addition e-health provides opportunities for improving the doctor/patient relationship. For patients e-health provides opportunities for greater freedom of choice with regard to the available care. E-health may also be a means of meeting the growing demand for care - due in significant measure to ageing - combined with the (growing) scarcity of care professionals in the labour market.

Apart from opportunities there are also threats. E-health ap-plications may not be a sufficient quality. Privacy may be in-fringed, e.g. due to the lack of adequate data protection meas-ures. Errors in software and/or hardware can have serious consequences.

Although care-providers use the Internet in order to consult general, non-patient-based medical information and to e-mail their colleagues, they apply e-health to only a limited extent in the direct provision of care to the patient. Where this is done this will generally take the form of a specific project.

Analysis

It is clear that e-health may make a significant contribution towards the realisation of high-quality, accessible and cost-effective health care. Potential threats can be eliminated. At the same time it may be noted that the healthcare sector lags behind other sectors when it comes to the input of new in-formation and communication technologies, such as e-health. There remains a big gap between the support that can in prin-ciple be provided by e-health and what is happening in prac-tice. This is not to suggest that the present care can be entirely replaced by e-health. In many cases e-health will mean the supplementation of existing care or will involve a different form of the same care.

In practice there turn out to be numerous obstacles towards the application of e-health. These obstacles or problems are concentrated around three topics: market structure, funding and legislation/regulations.

One of the most important problems is the fact that it is not always possible to exchange data between care-providers by electronic means. In the first place this is because data are not always recorded in electronic form. Secondly it is due to the non-application or inadequate application of technical stan-dards. By 'technical standards' is understood in this report standards that make it possible for data to be communicated between actors in health care by digital means. This means that this standardisation relates to the way in which data are ex-changed (the transport medium and security, etc.), the form in which this takes place (syntax) and the significance of the data to be exchanged (semantics). The fact that data cannot be properly exchanged electronically means that care-providers can remain deprived of information of relevance for the care they provide or that they unnecessarily repeat research that has already been carried out, etc. Care-providers in the health care sector have not been able in recent years to arrive at adequate cooperation when it comes to the facilitation of e-health. Care-providers have not succeeded in taking the necessary measures to bring about such co-operation. Care-providers are on the sidelines; in practice they lack the opportunities for the proper exchange of information that is required for the optimal provi-sion of care. Although the government has established that practitioners in the field are not succeeding in sorting things out themselves, it is reluctant to grasp the nettle itself. Never-theless all these parties will need jointly to ensure that the opportunities offered by the use of e-health are exploited.

Another problem is fear of change, or in other words the exis-tence of a culture within the health care sector that is not suf-ficiently open to the application of new information and communication technologies.

There are also obstacles in the financial and economic field. Too little is invested in relative terms and the question of reimbursements for the application of e-health is unclear. In addition the effectiveness of new e-health applications is not sufficiently apparent.

Finally there are legal obstacles. Privacy is not sufficiently assured if it is not possible for patient details to be exchanged electronically in a secure manner. It must also be established that those communicating electronically are in fact who they purport to be.

The conclusion to emerge from this analysis is that the appli-cation of e-health is a promising instrument for providing accessible, cost-effective care of high-quality but that this instrument is not being used sufficiently. In order to do so a number of preconditions need to be satisfied and various ob-stacles eliminated. The creation of preconditions, elimination of obstacles and provision of incentives for the application of e-health will be to the benefit of health care.

Advice

As noted above the government and practitioners in the field must together ensure that the opportunities offered by the input of e-health are exploited and the threats reduced or eliminated. The message of this advice may be summarised in a single sentence: make use of the opportunities that e-health offers for the provision of high-quality, accessible and cost-effective care.

It is the task of the government to create the necessary pre-conditions. By the latter the Council understands the compul-sory use of technical standards for the electronic exchange of data and the protection of electronic data traffic where this concerns particulars that can be traced back to the patient. It will prove impossible to make use of the opportunities offered by the application of e-health if these preconditions are not satisfied.

To this end the Council advises the Minister of Health, Wel-fare of Sport to establish an independent, publicly funded authority in order to ensure that data can be exchanged se-curely between information systems. This authority must have the power to impose the use of open standards on care-providers. This power could be delegated by tightening the Care Institutions (Quality) Act and the Individual Health Care Professions Act.

In addition the authority must encourage the secure electronic exchange of data in the health care sector. The necessary measures in the data protection field can be taken elsewhere. This removes an important obstacle, namely the possible in-fringement of privacy. Finally this authority must encourage the development of software on the basis of open source prin-ciples, meaning inter alia that the source code of developed software is publicly disclosed and freely accessible to all.

The government should promote investment in the develop-ment and implementation of e-health by setting up a fund. Care-providers should play a role in this regard by accepting a commitment when funds are awarded that they will ensure the continuity of the necessary funding if positive results are achieved.

Clarity needs to be provided with regard to the reimbursement of e-health applications. Apart from the fear of infringements of privacy, the lack of reimbursement for e-health applications is regarded as an important obstacle. If such applications in-volve a new form of care that needs to be classified as part of the package of primary care, care-providers must not be pre-vented from using such applications because they receive no reimbursement for them.

Practitioners in the field will need to focus in particular on changing the culture. E-health must be integrated into health care. In part this can be promoted by demonstrating that the application of e-health has added value for both the patient and the care-provider. Among other things this should be done by making use of e-health technology assessment in order to evaluate the effectiveness of e-health applications. This involves not just an evaluation in terms of costs but also obtaining insight into the quality gains and the organisational and social impact of such applications. Furthermore assess-ment will encourage the introduction of care-based e-health standards and the financial reimbursement of e-health applica-tions.

For both care-providers and patients/consumers it is impor-tant for patient and consumers to accept greater responsibility for their health. E-health can make a contribution to this end. It can for example facilitate the more efficient use of the avail-able range of care by relieving professionals of tasks that can be performed by others - in certain cases patients themselves, or those with whom they are in close contact. Among other things this can be promoted by making it easier for new e-health providers offering such resources to patients to enter the healthcare market.