eHealth Consumer Trends Survey in Greece: Results of the 1st phase

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Abstract

The aim of the eHealth Consumer Trends Survey in Greece is to investigate the perception and attitude of the population regarding use of the Internet for Health and Illness (H&I). It is the Greek part of a survey conducted concurrently in 7 European countries in 2005 and 2007, to establish eHealth consumer trends across Europe. 1000 men and women between 15-80 years old expressed in telephone interviews their opinion on the use of the Internet for H&I. The sample has been stratified for age, occupation, and geographic location of residence. The questionnaire is based on earlier Norwegian surveys (2000-2002) and was translated to national languages including Greek using the dual focus method. Four additional questions designed specifically for Greece explored the acceptance of innovative eHealth services.

In all Greek regions, the Internet is considered an important information source for H&I by 37.7-38.5% of the respondents. Internet use for H&I, however, varies considerably between urban and rural areas (29.5% vs. 18.5%), reaffirming the existence of the digital divide in Greece. While personal contact with health professionals ranks first among information sources for H&I, half the Internet users for H&I go online in search of information before or after a medical appointment. Moreover, 59.0% of the Internet users for H&I make their decision whether to consult a health professional partly based on information found on the Internet. 58.5% of the Internet users feel relief after consulting the Internet on H&I issues. Regarding eHealth, only 26.0% of the respondents feel comfortable with medical visits via computer or video-phone. Furthermore, just 46.0% would grant remote access to their medical data to expedite diagnosis. Given the opportunity, 61.7% would access their Electronic Health Record (EHR) online, 59.2% of them even on an annual fee.

Perception and use of the Internet as an information source for H&I assert the existence of a wide digital divide in Greece. However, favourable disposition towards online EHR access and hesitance towards telemedicine suggest that this divide can be bridged with education, user-oriented services, and incentives.

1 Introduction

As the line separating self-management of well-being and treatment of illness fades away, eHealth i.e. the application of Information and Communication Technologies (ICT) in the health sector contributes to a paradigm shift in the way people perceive health services. Traditionally, users of the health care system have been the "patients", fulfilling their role as relatively passive recipients of health care. Nowadays, in the emerging Information Society, eHealth is recognized as an integrated intelligent person-centered health care delivery network that contributes to the improvement of quality, access, and efficiency of healthcare. As a result, the scope of health services is expanding from treatment of diseases to addressing the needs of informed and health-conscious citizens [1,2]. The related concept of the "eHealth consumer"

includes patients, patients' friends and relatives, and citizens in general, who use the Internet and innovative ICT technologies to make informed decisions about their health. This concept is in line with the definition of health by the World Health Organization (WHO) as "*…a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity*." [3].

The WHO eHealth Consumer Trends (eHealth Trends) Survey aims to confirm indications on the use of the Internet for Health and Illness (H&I) and to answer questions regarding current trends on the attitudes and needs of eHealth consumers in different European countries. The relevant questions and issues are outlined below and main findings for Greece are presented in the results section.

Previous surveys in Europe and worldwide [4-34] report that use of the Internet in general and for H&I is higher among young educated men. Paragraphs under "*Use of the Internet for H&I*" present recent and detailed results from the eHealth trends survey in Greece relevant to the effects of gender and age, as well as the frequency of using the Internet for H&I.

The Internet provides access to a wide variety of information sources for H&I. At the same time, a new "*online culture*" is emerging as the Internet tends to substitute or complement other information sources for H&I. As a result, differences in perception between users and non-users of the Internet become evident. In the paragraphs "*Information sources for H&I*", we quantify differences in perception among Internet users, non users, as well as people that have frequent direct or indirect contact with the health care system e.g. when family member faces a chronic disability.

Throughout Europe and worldwide the main use of the Internet for H&I is information seeking, as eHealth consumers increasingly use the Internet to make decisions regarding their health. One study on Canadian oncologists and their patients reported that patients were three times as likely as oncologists to report that Internet information helped patients cope with their disease [43-44]. Furthermore, oncologists report that as patients tend to discuss Internet information, the duration of a medical visit has increased by 10 minutes. In the eHealth trends study, the frequency of H&I-related online activities such as email communication with health professionals, participation in support groups, purchase of medication, and information search, is measured. Then, the impact of these activities on the behaviour and psychological condition of eHealth consumers as related to relief, anxiety, and change of lifestyle or medication, is assessed. The relevant findings appear under "*Online activities related to H&I*".

Consensus regarding key evaluation criteria for health-related websites is gradually emerging with initiatives like the Health on the Net Foundation (HON), accredited at the European level [30,45]. Frequently cited quality criteria include those dealing with content, design and aesthetics of site, disclosure of authors, sponsors or developers, timeliness of information, authority of information sources, and ease of use [46-48]. However, besides codes of ethics and objective measures of website quality, subjective assessment of quality for H&I websites indicates the needs, preferences, and priorities of Internet users for H&I. The eHealth trends survey attempts to identify what makes H&I websites credible to eHealth consumers in Greece. Up-to-date and high quality information, the design and language of a website, as well as confidentiality and privacy are some of the criteria respondents rated on a 5-point Likert scale. Findings appear under "*Assessment of H&I website quality criteria*".

The last 10-15 years, the notion of the family doctor or general practitioner as the gatekeeper of the health system is gradually being introduced in Europe as the means

to rationalize health costs and coordinate health care [35,49,50]. Under this system, in most countries people have the right to choose or change their family doctor. As email communication, short message (SMS) notifications, and a website are services increasingly provided by public and private medical practices [7], it would be useful to know the extent to which provision of such online services for H&I affect the choice of the family doctor by the general population and Internet users in Greece. First, frequency and motivation for contacting a health professional online, as well as the rationale of those that have not, are investigated in the section "*Online contact with health professionals*". Then, paragraphs under "*Selecting a family doctor or specialist*" attempt to identify cultural differences between Internet users for H&I and the general population based on ratings of proposed selection criteria.

Four questions specifically designed for Greece attempt to further examine the perception and attitude of the population particularly towards innovative eHealth services. First, to assess first contact with the health care system in Greece, typical reaction of the general population and Internet users when faced with a health problem is investigated with a question suggesting alternative actions in random order. The responses of Internet users and non-users and the relative significance of the Internet are discussed in "*Contact points with the health care system*". The rest of the questions draw a distinction between: (a) real-time telemedicine i.e. a medical visit via video phone or computer, (b) granting remote access to one's medical data for a second opinion, and (c) willingness to access one's EHR online. Whether people are equally receptive to these types of innovative eHealth services and their willingness to pay for them are discussed in the sections "*Perception of telemedicine*", "*Granting remote access to medical data*", and "*Willingness to access one's EHR online*".

Having established general patterns of perception and attitude regarding online services for H&I, in the section entitled "Digital divide in Greece" we analyze the digital divide in Greece as reflected by differences in perception and actual use of the Internet for H&I. Differences observed relate to residence (urban/rural) and attitude towards online access to their EHR.

Recent survey results from the Nordic countries suggest that Internet penetration, having reached 70% to 80% of the population, has started to saturate as demonstrated by the low intention of the population to go online [9]. Paragraphs under "*Intention to use the Internet for H&I"* report on the intention of respondents to engage in online activities such as look for H&I information on the Internet, send an email to the family doctor or a specialist, order medication or other health products online.

Relevant previous studies and some background on the eHealth trends survey is provided in the next section. The methodology of the survey is covered in the section "*Materials and Methods*". Results drawn from the responses to twenty-three questions, four of which were specifically designed for Greece, are presented in the results section. In the discussion section, the results of the eHealth trends survey are placed into perspective and conclusions are presented on the driving forces and barriers to eHealth adoption in Greece. Key findings will be used as reference to establish eHealth trends, after the results from the second wave of the eHealth Consumer Trends survey are available in 2007.

2 Background – Relevant previous studies

The development of eHealth policies requires monitoring the actual use of eHealth technologies and services as well as the perceived needs of stakeholders (individuals, patients, physicians, administration, etc). Recognizing the need to follow up on the perception and adoption of ICT for health, questions relating to the use of the Internet for health periodically appear in Eurobarometer surveys. Three successive Eurobarometer surveys conducted at the request of the European commission in 2000 [16], 2001 [17] and 2002 [7], concerned the use of Internet by general practitioners (GP). For the 2002 survey, a sample of 80 to 400 GPs per Member State in the EU15 (that is to say 3512 interviews) made it possible to explore and track the trends of Internet use as part of the free medical practice. These surveys provide interesting results, for the European Union as a whole but also for member states, concerning ICT services available to GPs and also Internet use by GPs. Nevertheless, they did not investigate the doctors' attitude with respect to these practices nor their needs. To our knowledge, these investigations were not continued beyond 2002.

An extensive public opinion poll carried out by Eurobarometer in 2003 at the request of DG Sanco, included some questions about the use of the Internet for health [14]. Based on that study, 23.0% of people in the EU use the Internet to get information about health, with the highest rates in the Northern European countries: 41.0% in Denmark, 38.7% in the Netherlands, 33.5% in Sweden, 32.4% in Finland, and the lowest in the Central and Southern European countries: 11.7% in Greece, 13.5% in Spain, 14.0% in Portugal, 15.3% in France. Male sex, lower age, and higher education were positively related to the use of the Internet to get information about health. 41.0% believe that the Internet is a good way to get information about health. Other factors, including prior knowledge of and preoccupation with health-related issues, may also be of importance as reported by Leaffer in 2001 [15]. Beyond these findings, it remains unclear to what degree actual Internet access can explain the differences in the use of the Internet for health purposes as shown in Eurobarometer 58.0 [14].

A Norwegian survey by Andreassen et al. [28,29] found that 31% of the general population in Norway used the Internet for health purposes in 2001, up from 19% in 2000. A total of 45% of the respondents would like to have contact with their doctors by e-mail. Similar results were found by Wroclav Medical University, Poland in 2002, although a different methodology was used by Borzekowski et al. [26].

The SIBIS project [4] was funded by the European Commission within the framework of the IST program (1998-2002). It concerned information society indicators including eHealth-related ones and was completed in 2003. A survey was carried out in 2002 on approximately 12000 people aged 15 years and over in the EU15, Switzerland, and the United States. This investigation provided interesting results on the use of Internet for health. However, the results are only useable for EU15 as a whole and results for Greece cannot be easily drawn due to sample limitations and the low level of Internet penetration. The SIBIS eHealth indicators exclusively address health-related advice or information on the Internet and not eHealth services facilitating an interaction with the doctors. Nevertheless the SIBIS investigation is of particular interest as it allows comparison of EU and US data. The Health On the Net foundation (HON) has also made an attempt to analyze Internet use for health purposes in Europe and the US, but respondents were recruited solely among Internet users and thus their sample is not representative of the general population [30]. More recently, in 2004, the eUser project [5] led an investigation in 10 Member States

(Denmark, France, Germany, Ireland, Italy and United Kingdom, Czech Republic, Hungary, Poland and Slovenia) with interviews of about 1000 individuals aged 18 years or over per country. This investigation addressed use of Internet to search for health information as well as communication with health professionals using ICT (e-mail, phone etc.).

On the other side of the Atlantic, many similar surveys were conducted in the recent years in the US. Among them, the National Survey of Health and the Internet has been funded by the National Institute of Aging [18]. This survey was conducted in December 2001 and January 2002 on a sample of nearly 5000 individuals aged 21 years or older and addressed Internet use to obtain health-related information, prevalence of e-mail use for health care, and the effects of these activities on user knowledge about heath care. The Pew Research Center also financed two surveys, in 2002 and 2004, on the use of Internet for health information on a sample of approximately 1000 individuals [19]. According to their report eight in ten Internet users in the US look for health information online, with increased interest in diet, fitness, drugs, health insurance, experimental treatments, particular doctors and hospitals. Finally, polls are carried out on a regular basis by the Harris Interactive Institute on eHealth topics [20-22].

In a 2003 US survey, Baker et al. [23] found that 40% of the respondents had used the Internet for health purposes, and 6% had used e-mail to contact a health professional. Male sex, higher education, and poor health status were related to high rates of Internet use for health purposes. There was no significant relationship to level of income and age (except a lower use for those over 75 years). A study by Fox and Raine in 2000 [31] found that more than 60% of Americans have used the Internet to find health information. Eysenbach & Kohler in 2003 [32] found that 4.5% of all searches on the World Wide Web are health-related. A different US study by Pandey et al. in 2003 [24] suggested that the use of the Internet for health information is greater among women with higher levels of income and education. Two US studies by Borzekowski et al. [26] and Skinner et al. [27] suggest that as many as 49-67% of the adolescents had used the Internet to search for health information. Sex, ethnicity and mother's education did not influence the use of Internet for health. In 2002, Diaz et al. [34] found that health-related information gathered on the Internet can be a central influence when people make decisions regarding their own health. Poorer self-rated health status was also related to a higher use of Internet for health purposes in a US study by Houston et al. in 2002 [25]. A UK study by Richards et al. in 2005 [33] suggested that lack of proper training, high costs, and increased workload are factors that appear to contribute to a low use of the Internet for medical consultations. Leaffer in 2001 [15] and Skinner et al. in 2003 [27] conclude that locating high-quality information and ensuring their privacy are key challenges for users of the Internet for health.

The eHealth trends survey complements preceding studies in a particularly interesting way. Beyond the use of the Internet for health and illness, it is concerned with the attitudes of Internet users and the general population towards eHealth services and the perceived benefits providing recent data to be compared with previous studies. Additionally, because this project builds upon two surveys carried out 18 months apart, it allows establishing and measuring indicators revealing potentially important eHealth trends.

The eHealth trends survey is founded on the assumption that deployment of eHealth services at the point of care is to a large extent consumer-driven. Acceptance and

adoption of services that directly involve eHealth consumers are unlikely unless these services are based on knowledge about their perceived needs and attitudes. Moreover, the overall objectives of the eHealth trends survey fit fully with the prospects of WHO, which recently established a Global Observatory for eHealth [36] and would also be of value to authorities, industry and science on a national and European level. The results will no doubt provide useful input to public health and infrastructure policies (e.g. equity of access, educational, judicial, reimbursement, quality assurance), health care providers (e.g. new services, organisational response), researchers (hypotheses generating, theory building) and commercial parties (market indications for eHealth innovations) across Europe. In a nutshell, the results of the eHealth trends survey are significant for those interested in the emerging eHealth market and in particular policy makers who wish to raise awareness and promote the practice of eHealth.

2.1 The case of Greece

With approximately 11 million inhabitants in 2004, Greece represents 2.4% of the population in European Union, and it is one of the countries with the weakest density of inhabitants by km². The Greek population is among the oldest ones of the European Union, preceding Germany and Italy: 17.5 % of the Greek population is aged 65 years or more in 2004 (16.6 % on average in the EU25), and its fertility rate is among the lowest ones of the European Union countries: it is estimated at 1.29 children per woman in 2004 compared to 1.50 for the average of the EU25, far from the replacement level rate (2.1) for highly developed countries.

Life expectancy is high in Greece: in 2003 it is estimated at 76.5 years for males and 81.3 years for females (the EU average is respectively 74.9 years and 81.3 years). The death rate for males is among the lowest in the EU (796 per 100000 inhabitants in 2003) whereas it is on average for females (562 per 100000 habitants). Cancer constitutes the principal cause of death ahead of the ischemic heart diseases: respectively 218 against 126 per 100000 male inhabitants and 113 against 59 per 100000 female inhabitants in 2003. Surveys on self-rate of health status reveal a surprisingly high percentage of Greeks aged 15 years or more, who consider themselves in a very good health (53%). Can one attribute that to the particularly high density of physicians? There are 454 physicians for 100000 inhabitants, which places Greece largely at the head of all the EU members states. On the opposite, the number of hospital beds per 100000 inhabitants (488 in 2000) is very low compared to the EU average (652).

Greece is a particularly interesting case for the eHealth trends survey due to the low penetration of the Internet. eHealth in Greece appears to be by large a grass root phenomenon that has emerged within a mere 4-to-10 year period and is not the result of any planned action from the health care authorities. Although the population in Greece but also Europe has never been healthier, health care systems are scrambling to effectively cope with costs and demand. In the meantime, there is little knowledge on how eHealth will influence health care delivery. Potential dangers are manifestations of the digital divide and medicalization of the population. To make matters worse, patient mobility within Europe introduces the need for the provision of cross-border health care services and closer collaboration among health systems in the member states [31]. In that respect, the attitudes of eHealth consumers towards use of the Internet for H&I can profoundly influence the overall impact of cross-border care on access (i.e. shorter waiting lists), quality (i.e. continuity of care) and costs (i.e. seamless or shared care).

3 Methodology of the research

Partners from seven European countries, Norway, Latvia, Germany, Denmark, Portugal, Greece, and Poland, participate in the eHealth Trends survey, which seeks to establish eHealth consumer trends in Europe. This effort builds on prior surveys conducted by the Norwegian Centre for Telemedicine (NST) (2000-2002) to monitor the use, attitudes, and needs of Norwegian eHealth consumers [28,29]. An expansion of the survey to a European level was initiated by the World Health Organisation (WHO) in 2003 and is coordinated by NST.

The eHealth Trends survey project investigates for the first time in Europe, eHealth consumers using representative samples from seven countries located north, central and south Europe with different socio-economic attributes. The adopted methodology combines aspects of previous US and European initiatives, to further investigate the nature of Internet use for health purposes. The primary objective is to establish indicators on the use, attitude, and needs of consumers regarding Internet-based services for Health and Illness (H&I), in each participating country. Across countries, it is important to identify possible differences in the use, attitude, and needs of consumers with regards to online services for H&I and relate these findings to the level of Internet use in general. It would also be interesting to explore if and to what degree the findings of these surveys change within the study period, indicating emerging eHealth consumer trends.

The design of the eHealth trends survey and the reference questionnaire were established in the course of two years and two international workshops. The first meeting was organized in Barcelona by the WHO European Office for Integrated Health Care Services in May 2004 [37]. The aim of the workshop was to develop a common framework for the survey and ensure comparable data sets. In June 2005, the first project workshop was held in NST, Tromsø, to refine the design of the eHealth trends survey, finalize the content of the questionnaire, and plan the surveys.

After developing the reference English questionnaire, the questionnaire was piloted by NST to ensure that the questions are consistent and comprehensive. Each partner is responsible for translating the questionnaire into the national languages by "translating for meaning" [38] and for coordinating the national surveys according to the agreed upon protocol. The second workshop was held in Luxemburg in December 2005. It took place after the first survey was completed in all participating countries and focused on discussing the results of national surveys and planning joint international publications. The third workshop, in February 2007, will revise the survey with relevant adjustments and prepare for the second wave of data collection. The fourth workshop is planned for June 2007 after the second survey has been completed, with the aim to identify and discuss emerging eHealth consumer trends.

The reference questionnaire consists of nineteen questions. Each country was encouraged to include country-specific questions, within the time limit of 15-minute interviews. Four questions were added to address the attitude of the Greek population with regards to innovative eHealth services. The first wave of the eHealth trends survey was completed in November 2005 and the key findings are presented in this report. The second wave of the survey has been planned for April 2007 concurrently with other participating countries.

3.1 Translation of the Questionnaire: Dual Focus Method

The reference questionnaire was developed in English. Each participating country was responsible for its translation to their national language (or languages) using the dual focus method based on "translation for meaning" [38]. The dual focus method involves a team of experts and professional translators with skills in both languages: the *translation team*. The translation team discusses the translation word for word, sentence by sentence focusing on meaning. Translation adequacy is evaluated using a *focus group* of individuals reflecting the population under investigation. Within the focus group, one explores the feelings that words and phrases evoke, looking for expressions with similar meaning, even if the translation seems dissimilar on the surface.

The translation of the questionnaire was completed during a two-day workshop on 1-2 September 2005. A translation team including two professional translators went through a pre-prepared translation of the questionnaire clarifying and selecting appropriate wording to reflect meaning in the Greek language. The focus group comprised seven persons 15-60 years old of different educational levels, who responded to the questionnaire in individual 15 minute interviews. Any issues that came up during the interviews were subsequently discussed in a plenary session to finalize the Greek translation. The observation that a member of the focus group had used the Internet through someone else resulted in modification of the reference questionnaire to address use of the Internet via a third party in all countries.

3.2 Survey Methodology

The poll agency that carried out the survey in Greece is MetronAnalysis. MetronAnalysis has 30 stations for computer assisted telephone interviews with the capacity of 60 completed interviews per hour (15 min interviews in the general population) and more than 600 completed interviews per day. The company uses the computer assisted telephone interview (CATI) software Converso. This system has been used for many years in the Greek and International market. It includes basic and advanced functions of CATI such as:

- Independent modules for planning and control of questionnaires
- Modules for appointment setting and management of unsuccessful calls throughout the day
- Programming of open or closed questions, numerical or text answers
- Creation of multi-question screens
- Creation of commands for logic control, conditions and repeated processes (commands, conditions, loops, assignments)
- Randomization of names, questions or answers (randomization, rotation, items, questions)
- Creation of commands before or after the questions (before and after scripts)
- Creation of variable quotas based on demographics. Continuous follow-up of quotas during the survey
- Direct management of database connection with sampling frames and questionnaire
- Follow-up of the survey progress (quotas, response rates, appointments, mean number of interviews per hour, total number of interviews) in the total and per researcher
- Creation of direct coding based on received data
- Follow-up research results from the analysis of the data collected.

Sample selection is automatically checked via a specialised CATI module. CATI allows for the programming of a specific sampling technique (fully random, quota sampling etc.), but also for controlling the sample characteristics in real time (region of residence, gender, age etc).

Sampling is completed in three stages. The first stage involves the connection of CATI with a database of telephone numbers. The database of telephone numbers is created based on the specifications of each survey, applying specialised software in the SPSS environment. In addition to telephone numbers, it includes information for sample control e.g. region of residence. The database is in Microsoft ACCESS format and it usually includes twenty times more phone numbers than the required sample size, in order to anticipate cases of non answer, refusal of participation, wrong numbers etc. In the second stage and after the phone database has been connected with CATI, the survey team define the control variables and the special requirements for the final sample. For the eHealth Consumer Trends survey, the control variables were region of residence, gender and age, while the final sample reflects the census data of the Greek Population as it is provided by the National Statistics Agency [39]. The third stage involves controlling the sample throughout the duration of the survey. The person in charge of the survey monitors sample characteristics in real time. In the meantime, he/she checks the number and flow of interviews, sets the parameters for telephone appointments, and supervises the overall and per researcher progress of the survey.

3.3 The first survey –Data quality aspects

The sample included 1000 men and women 15-80 years old and reflected the Greek census data as provided by the National Statistics Agency [39]. The sampling methodology involved selection of telephone numbers from the archive of the national telephone company (OTE) using stratified sampling. The fixed line phone coverage in Greece is 86.9%, which means that 13.1% of the population could not be reached through a fixed phone line.

Telephone interviews took place from 15-31 October 2005. 30.0% of the interviews were checked via co-listening and 100.0% electronically. Average time for each interview was 10 minutes. The response rate was 20.5%. The sampling error on the full sample did not exceed ±3.1%. A cross-sectional comparison design was used to examine the responses of the general population, Internet users, and Internet users for H&I, in different regions of Greece. Response alternatives were formulated along the 5-point Likert scale [40-42]. Data was analyzed using descriptive statistics, correlations, cross-tabulations, and binary logistic regression. In particular cases where the sample involves less than 60 respondents, results are considered purely "indicative" and are noted as such.

The adopted survey protocol placed particular attention to data quality aspects. These issues related to interview experience, guidelines, non-response, strange values, extreme respondents, and systematic non response. Each of these items is discussed in turn below.

Interview experiences: According to interviewers and supervisors of the survey, no repeated difficulties were detected concerning respondents comprehension of the questions. The questionnaire was quite intelligible even to respondents of older age. Only in a few cases, the interviewers had to clarify key words like e-mail or health professionals or to help the respondents recall the frequency scale (e.g. Q11 in

Appendix II). Sometimes, among older respondents, the interviewers had to repeat the questions but this is a usual practice in most surveys.

Adherence to interviewer guidelines: In order to participate in the specific survey, each interviewer attended a 2-hour seminar where he or she got information and guidance on the survey. Afterwards, interviewers carried out mock interviews with their supervisors to ensure that all aspects are clear to them. During the interviewing, about 30% of the interviews are checked via simultaneous listening by controllers and supervisors as a quality check procedure. No deviations from the guidelines were detected.

Item non-responses: The level of missing data concerning non-replies was very low or null in most questions. Thus, there were no statistically important differences between the two segments. The 'Don't know' or 'Don't want to answer' responses were very low (no more than 4.2%, only for a couple of questions) comparing with other telephone opinion surveys. The non-response rate was even lower for the key questions such as having used Internet for H&I or not.

Response style: There were no tendencies to use certain parts of the scale more than others amongst respondents.

The sample: The sampling procedure went according to plan. The only problem concerned the higher refusal rate among elderly people with lower education. But this is very common in telephone surveys. The sample was monitored throughout data collection to ensure that it represents the national population statistics.

Strange values: Taking into account the low number of open-ended questions only a few cases of strange values were detected on the raw data file. One strange answer identified concerned the number of children under 18 years old in the household in a specific case which were recorded as 12. Some strange answers also concerned the number of visits to the doctor. The recorded answers were 100, 100, 150, and 155. In all cases, recalls were conducted in order to double-check the recorded answers. As a result, it was proven that the interviewers had recorded all five answers wrongly and hence they were corrected.

Extreme respondents: According to the experience of interviewers and supervisors there were no more than five extreme respondents among the elderly group. In those cases, interviewers had to clarify key words like e-mail or health professionals, help respondents remember the frequency scale or repeat questions.

Systematic non-responses, non-contacts, and refusals: Systematic non-responses, either contacts or refusals from specific groups of the target population were not recorded. In the case of a non-response, the prospective household was replaced by another one with the same characteristics (region, urbanity).

4 Results

4.1 Use of the Internet for H&I

Eurostat [10-13] reports that for several years now Greece maintains the lowest percentage of regular (at least once a week) Internet users (18.0% in 2005) and the lowest percent of Internet users in EU15 that have ordered goods or services for private use over the Internet (2.0% in 2005). Gender, age, education, and profession are the main factors affecting Internet use. In 2005, 22.0% of men and 15.0% of women in Greece are users of the Internet on a weekly basis, while 71.0% of men and 75.0% of women have never used the Internet. Furthermore, while 48.0% of the students are regular users of the Internet, 31.0% have never used it.

Table 1: Main findings of the eHealth trends survey on Internet use for H&I in Greece in the age group 15-80.

Sample	*1000*	*100%*
Internet Users*	422	42.2%
Internet Users for H&I**	229	22.9%

**Respondents that have used the Internet.*
***Respondents that have used the Internet for H&I to find information about health or Illness (H&I).*

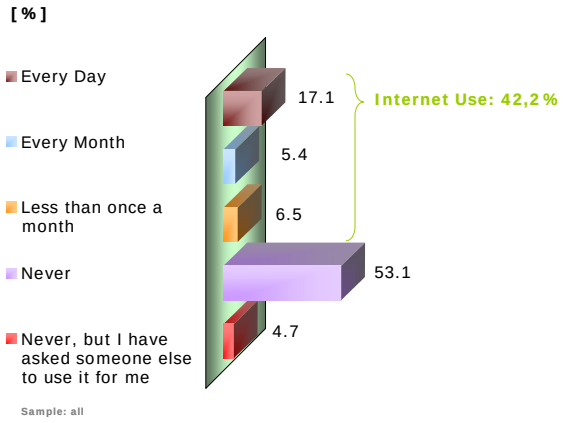


Figure 1: Frequency of Internet use in Greece among Internet users (n=422).

In general, the results of the eHealth trends survey in Greece (see Table 1**,** Figure 1), are consistent with those reported by Eurostat. The higher percentage of Internet users reported in this survey is due to the upper bound set (i.e. 80 years) on the age of the participants to the survey. Our results indicate that while 4.7% of the respondents are indirect users of the Internet, 53.1% of the respondents have never used the Internet alone or through someone else (see Figure 1). According to our results, gender affects the use of the Internet (χ^2= 22.765, *p-value=0.000*) and 59.5% of the Internet users are male. A second factor that influences the use of the Internet is age (*t=15.054, p-value=0.000*). The younger a person is, the more likely they are to be an Internet user. Mean age of non-users is 51.8 years (*95% CI, 50.32-53.03*), whereas mean age of Internet users is 33.8 years (*95% CI, 32.49-35.01)*. Mean difference of age between Internet non-users and users is 18 years (*95% CI, 15.7-20.4*), suggesting that Internet use is on the rise.

Frequency of Internet Use by Age Group

			Age		
			Under 18	Over 18	Total
How often do you use the Internet?	Every day	N	12	159	171
		% Age Group	30,8%	16,5%	17,1%
	Every week	N	11	121	132
		% Age Group	28,2%	12,6%	13,2%
	Every month	N	4	50	54
		% Age Group	10,3%	5,2%	5,4%
	Less than once a month	N	5	60	65
		% Age Group	12,8%	6,2%	6,5%
	I have never used the Internet	N	7	524	531
		% Age Group	17,9%	54,5%	53,1%
	I have never used it, but I have asked others to use it for me	N	0	47	47
		% Age Group	,0%	4,9%	4,7%
Total		N	39	961	1000
		% Age Group	100,0%	100,0%	100,0%

Figure 2: Frequency of Internet use by age group.

Indicative frequency of Internet use as shown in Figure 2, is higher in the age group below 18 years old. An interesting aspect is that 4.7% of the respondents all above 18, have used the Internet through someone else. Furthermore, as shown in Figure 3 most of the users access the internet from the privacy of their home (57.3%), while 53% of the employed use the Internet from their workplace (41.9% overall).

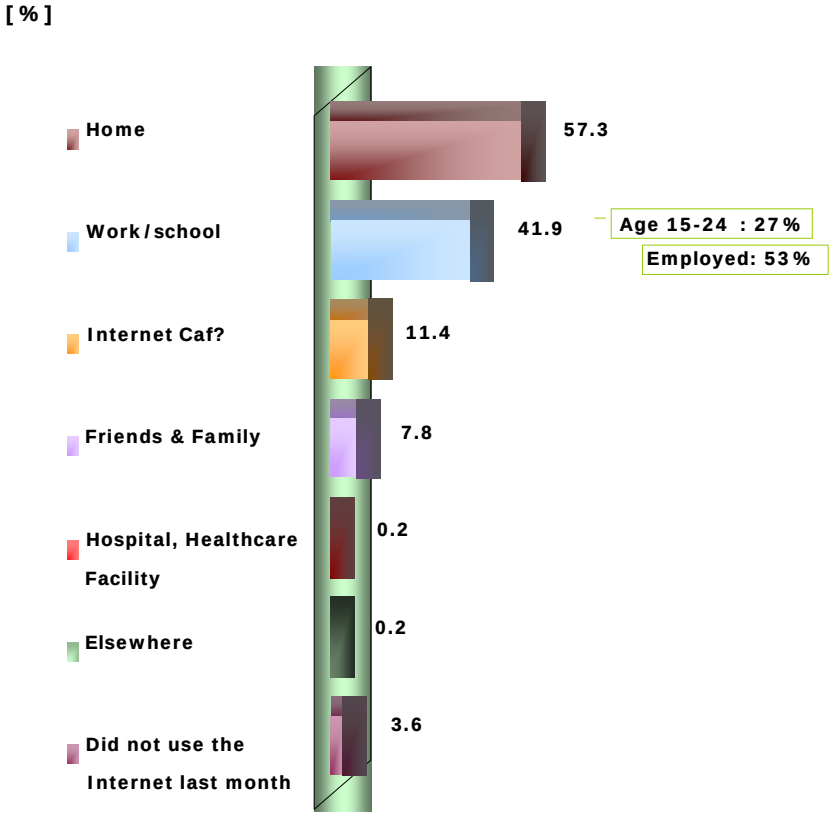


Figure 3: Locations used to access the Internet during the last month amongst Internet users (n=422).

According to our results, 54.2% of the Internet users go online to search for information on H&I (Table 2). Men use the Internet more than women, but women use it more for H&I: 52.6% of male and 56.7% of female Internet users go online in pursuit of information on H&I. Female Internet users focus on H&I issues more strongly than Internet users in general. As shown in Table 2**,** this is particularly prominent at the ages 25-64 with a peak at the ages 35-44 (71.9%). The mean age of women who look for online information on H&I is 34.7 years (*95% CI, 32.34-37.14*). Mean age of women that use the Internet but not for H&I is 28.9 years (*95% CI, 26.11-31.70*). The difference in age between women that use the Internet in general from those that use it for H&I, 5.8 years (*95% CI, 2.19-9.49*), is statistically significant (*t=-3.151, p-value=0.002*). This result could be explained taking into consideration that women of higher education in Greece form families and bear their children typically in their thirties [39], and at that time in life they need to learn more about H&I.

Table 2: Internet use for H&I and for purposes other than H&I by age and gender among Internet users (n=422).

Age Group	Internet Users for purposes other than H&I		Internet Users for H&I		Total Internet Users by Gender		Total Internet Users
	Male *(m=34.29, s=13.918)*	Female *(m=28.81, s=12.064)*	Male *(m=35.24, s=13.464)*	Female *(m=34.74, s=11.920)*	Male *(m=34.79, s=13.664)*	Female *(m=32.22, s=12.294)*	
15 – 24 (N)	42	39	33	21	75	60	135
% Age groups	56.0%	65.0%	44.0%	35.0%	100.0%	100.0%	100.0%
%Internet Use	35.3%	52.7%	25.0%	21.6%	29.9%	35.1%	32.0%
25 – 34 (N)	23	16	36	33	59	49	108
% Age groups	39.0%	32.7%	61.0%	67.3%	100.0%	100.0%	100.0%
%Internet Use	19.3%	21.6%	27.3%	34.0%	23.5%	28.7%	25.6%
35 – 44 (N)	22	9	34	23	56	32	88
% Age groups	39.3%	28.1%	60.7%	71.9%	100.0%	100.0%	100.0%
%Internet Use	18.5%	12.2%	25.8%	23.7%	22.3%	18.7%	20.9%
45 – 54 (N)	21	6	18	13	39	19	58
% Age groups	53.8%	31.6%	46.2%	68.4%	100.0%	100.0%	100.0%
%Internet Use	17.6%	8.1%	13.6%	13.4%	15.5%	11.1%	13.7%
55 – 64 (N)	10	4	4	6	14	10	24
% Age groups	71.4%	40.0%	28.6%	60.0%	100.0%	100.0%	100.0%
%Internet Use	8.4%	5.4%	3.0%	6.2%	5.6%	5.8%	5.7%
65 – 80 (N)	1	0	7	1	8	1	9
% Age groups	12.5%	0.0%	87.5%	100.0%	100.0%	100.0%	100.0%
%Internet Use	0.8%	0.0%	5.3%	1.0%	3.2%	0.6%	2.1%
Total (N)	119	74	132	97	251	171	422
% Age groups	47.4%	43.3%	52.6%	56.7%	100.0%	100.0%	100.0%
%Internet Use	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

N, is the actual number of cases reported.

% Age group is the % of Internet users within each age group.

% Internet use is the % of cases in different age groups of Internet users.

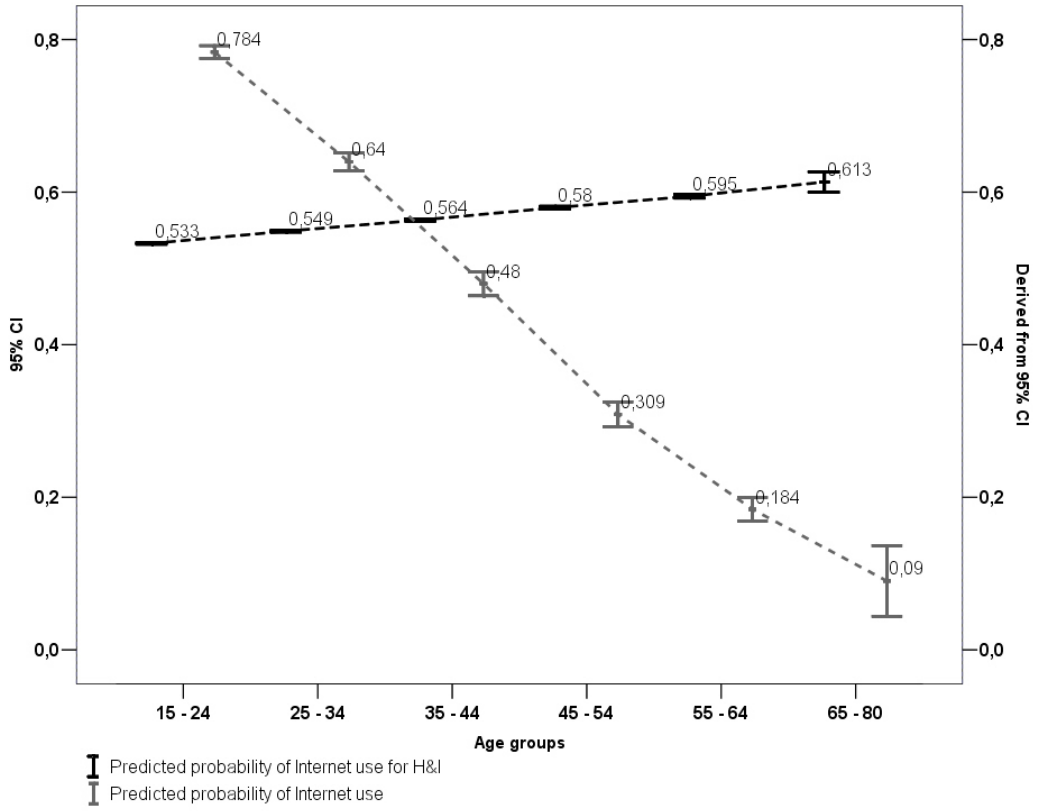


Figure 4: In contrast to Internet use, predicted probability of Internet use for H&I increases with age.

Although actual use of the Internet drops with age, the probability of Internet use for H&I increases as people get older. Figure 4 shows the predicted probability of using the Internet along one's lifetime against the predicted probability of using the Internet for H&I, calculated with binary logistic regression weighted for age, gender, and education. Among Internet users only 40.0% of respondents 15 to 24 years old, 44.0% of men and 35.0% of women, search online for H&I. However, 64.8% of Internet users at the ages 35-44 look for H&I information on the Internet. This trend increases as people get older: nearly all Internet users search for information on H&I. Figure 4 shows Internet use for H&I among men and women and in relation to their age groups.

Table 3: Frequency of Internet use for H&I among Internet users for H&I (n=229).

Frequency of Internet use for H&I	N*	%**
Every day	9	3.9%
Every week	44	19.2%
Every month	77	33.6%
Every six months	40	17.5%
Every year	21	9.2%
Less than once a year	38	16.6%
Total (Internet users for H&I)	229	100.0%

**N is the number of respondents that reported to have used the Internet for H&I*
***% represents the percentage of these cases among Internet users for H&I.*

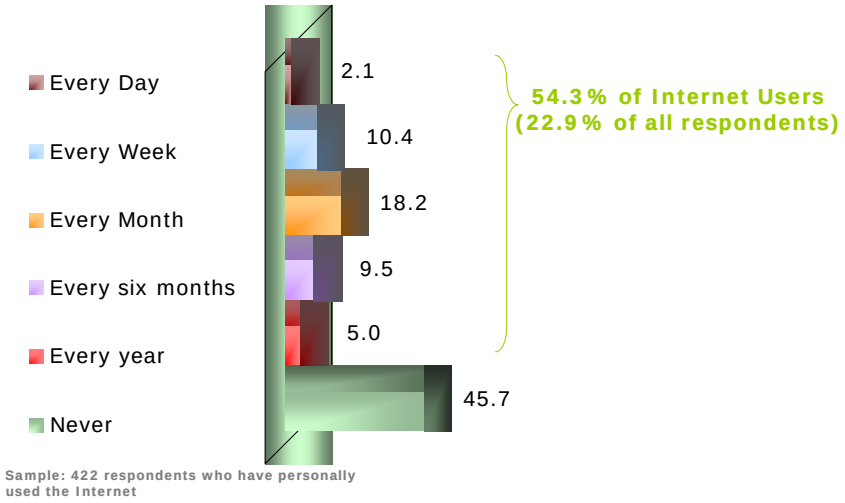


Figure 5: Frequency of Internet use for H&I amongst Internet users (n=422).

The frequency of online activities related to H&I indicate a monthly activity focusing on information search. 23.1% of the respondents use the Internet to find information about H&I on a daily or weekly basis, 33.6% every month, 26.7% once or twice a year, and 16.6% less than once a year (Table 3). Thus, *Superusers* (*definition*) of the Internet in Greece are mainly monthly users of the Internet for H&I. Among those that have used the Internet through someone else (47 respondents), 1 out of 3 reported to have used it for H&I (Figure 6).

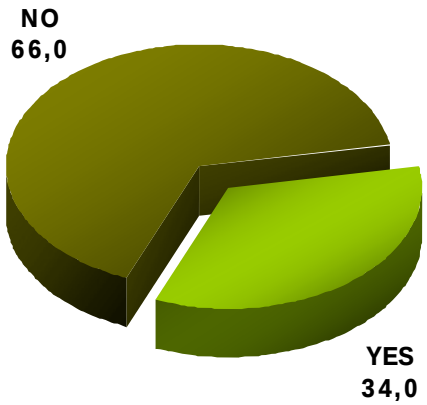


Figure 6: Indicative Internet use for H&I by respondents that reported to have used the Internet through someone else (n=47).

4.2 Information sources for H&I

People explore different kinds of information sources in their quest for knowledge about health or Illness. Some information sources for H&I are personal and confidential such as friends or health professionals, others occasional, impersonal and circumstantial like TV or radio, yet others highly specialized such as books, encyclopedias, or seminars. A question in the eHealth trends survey requested respondents to rate different information sources for H&I on a Likert scale 1-5 (not important to very important).

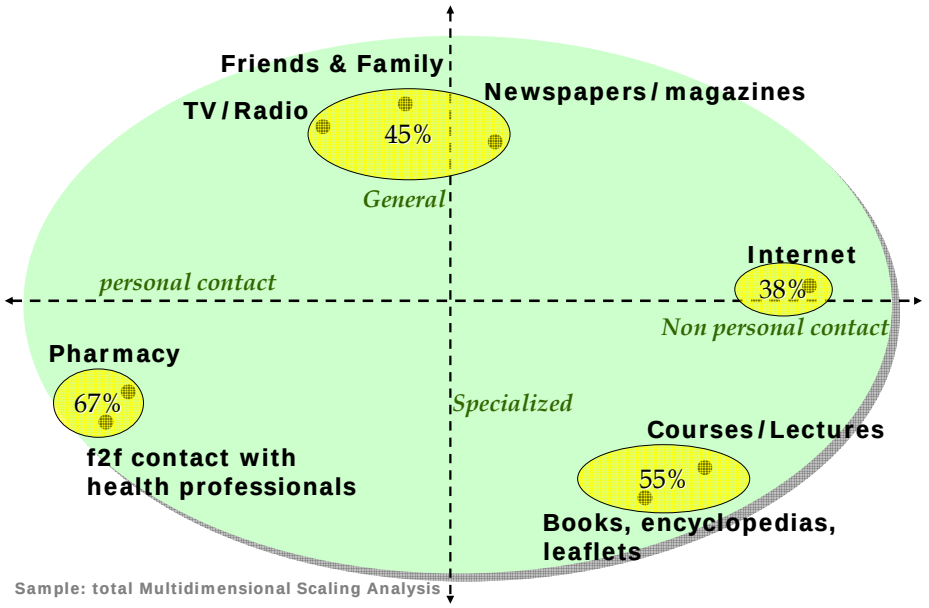


Figure 7: Multidimentional scaling analysis on information sources for H&I (n=1000).

Multidimensional scaling analysis on sources of information for H&I grouped respondents according to their preferable information sources. According to Figure 7, 45.0% of respondents rate friends & family, TV/radio, and newspapers as important or very important. In the same way, 67.0% deem as important or very important the close personal attention provided by physicians and pharmacies. A rather high percentage of respondents (55.0%) prefer authoritative reference information sources such as books, while the Internet (38.1%) may be identified close to books and courses, but is a group in its own.

Table 4: Factor analysis groups the Internet together with authorative information sources for H&I such as books and medical encyclopaedias.

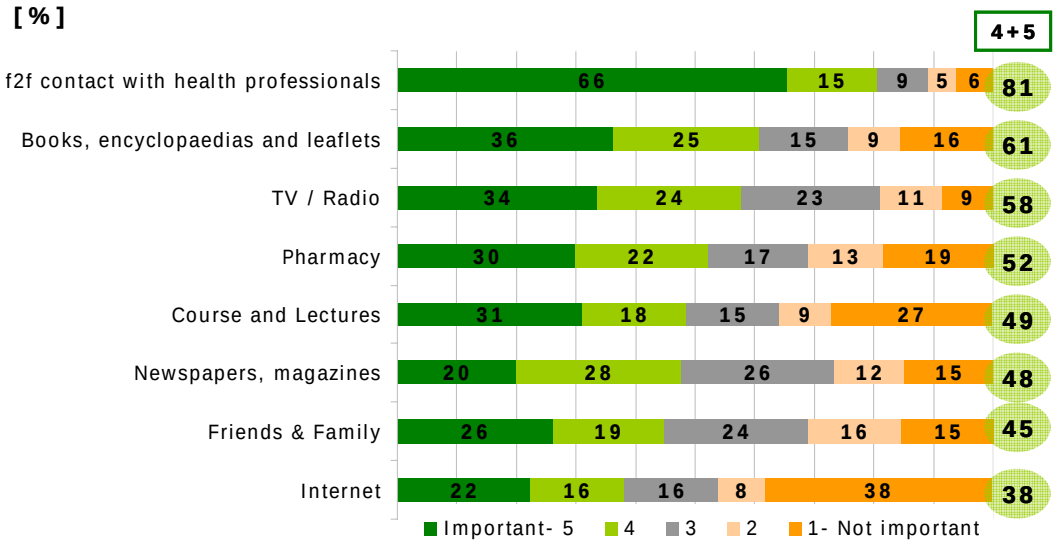
Rotated Factor Matrix

	Factor		
	1	2	3
Courses and lectures	0.7345	0.176	0.0358
Books, medical encyclopaedias and leaflets	0.6741	0.1509	0.1641
Internet	0.4086	0.0526	-0.076
Pharmacies	0.1101	0.9704	0.2029
F2f contact with health professionals	0.1344	0.256	0.0475
Newspapers, magazines	0.3116	0.0042	0.6471
TV/radio	-0.1	0.0644	0.4616
Family, friends and colleagues	-0.002	0.1654	0.4562

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 5 iterations.

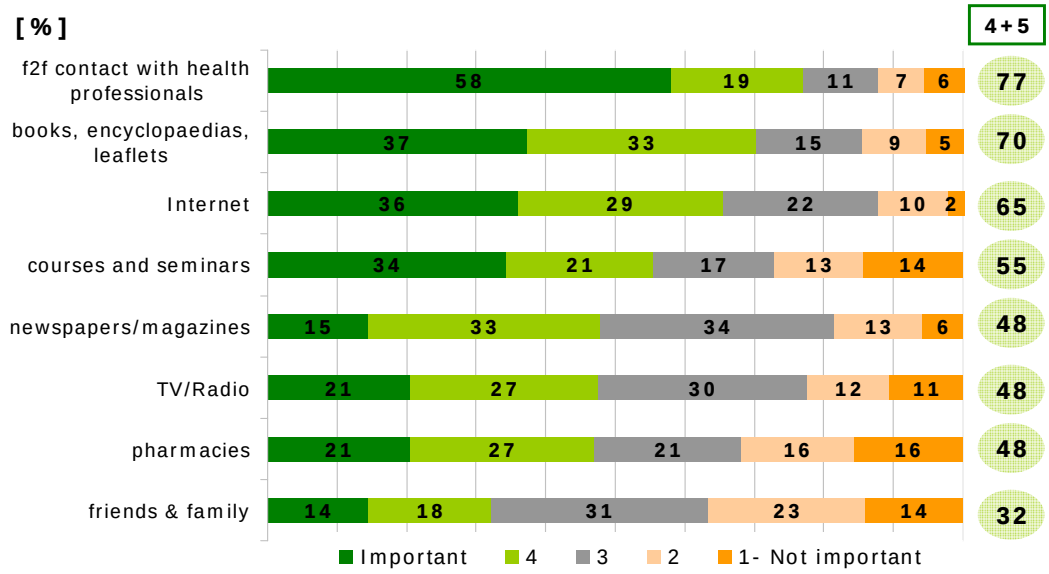
Factor analysis on the other hand (Table 4) identified only three groupings: a) courses & lectures, medical encyclopaedias & leaflets, and the *Internet*, (b) Pharmacies, face to face (f2f) contact with physician, (c) Newspapers & magazines, TV/radio, family &

friends. The classification provided by factor analysis presents the Internet as an authoritative information source along with books and encyclopaedias.



Sample all: No response rate 0-2,8 %

Figure 8: Rating of different sources of information for H&I, in the general population (n=1000).



Sample: 229 internet use for health or Illness, no response rate 0-2,2 %

Figure 9: Rating of different sources of information for H&I, among Internet users (n=422).

Figure 8 and Figure 9 as well as Table 5 on the next page report the rating of different information sources by the general population and Internet users (n=422). Among the general population, f2f contact with health care professionals clearly rates first in importance (80.5% rate it important or very important). Books and medical encyclopaedias (60.8%), TV/radio (57.7%), as well as pharmacies (52.2%) follow. Courses and lectures, newspapers, family & friends are next, and rated last in

importance is the Internet (38.1%). Moreover, if we consider people with chronic illness (data not shown), then f2f contact with physicians is even more important (86.0%), with TV/radio (70.0%) followed by pharmacies (56.0%) next.

Although the Internet is last in the preferences of the general population, it rates third among Internet users (55.3% rate it important or very important). The characteristics of those who consider the Internet as an important or very important source of information for H&I are likely to be male, 15-44 old, white collar workers of higher education. Again, just like factor analysis, these findings emphasize the perception of the Internet as a reference source for H&I equitable to books and encyclopaedias.

Internet users appreciate the Internet more than TV/radio as a source of information for H&I. Actually, among Internet users the Internet replaces TV/radio as the third most preferred information source for H&I (55.3% vs. 50.2%). The top preferred information sources for H&I common to the general population and Internet users are f2f contact with physicians and books.

Table 5: Rating of information sources for H&I in the general population (n=1000) and among Internet users (n=422) (1 not important: 5 very important).

Gen Population (n=1000)	*1*		*2*		*3*		*4*		*5*		*4+5*	
Information source/rating	*N**	*(%)***	*N*	*(%)*	*N*	*(%)*	*N*	*(%)*	*N*	*(%)*	*N*	*%*
Internet *	370	38.1%	76	7.8%	155	15.9%	153	15.7%	218	22.4%	371	38.1%
TV/radio	85	8.5%	105	10.5%	233	23.3%	241	24.1%	336	33.6%	577	**57.7%**
Books, encycl	154	15.5%	87	8.8%	148	14.9%	244	24.5%	361	36.3%	605	60.8%
Courses & lecture	265	26.9%	89	9.0%	152	15.4%	173	17.5%	307	31.1%	480	48.6%
News, magaz	147	14.8%	120	12.0%	255	25.6%	274	27.5%	200	20.1%	474	47.6%
Family & friends	153	15.4%	157	15.8%	241	24.2%	184	18.5%	261	26.2%	445	**44.7%**
Pharmacies	184	18.5%	126	12.7%	166	16.7%	222	22.3%	298	29.9%	520	**52.2%**
F2f contact	61	6.1%	47	4.7%	87	8.7%	150	15.0%	655	65.5%	805	**80.5%**
Internet Users (n=422)	1		2		3		4		5		4+5	
Information source/rating	*N♣*	*(%)♦*	*N*	*(%)*	*N*	*(%)*	*N*	*(%)*	*N*	*(%)*	*N*	*%*
Internet (n=418)	40	9.6%	49	11.7%	98	23.4%	103	24.6%	128	30.6%	231	**55.3%**
TV/radio (n=422)	37	8.8%	57	13.5%	116	27.5%	113	26.8%	99	23.5%	212	**50.2%**
Books, encycl (n=421)	26	6.2%	53	12.6%	68	16.2%	127	30.2%	147	34.9%	274	65.1%
Courses (n=415)	70	16.9%	53	12.8%	73	17.6%	89	21.4%	130	31.3%	219	52.8%
News, magaz (n=421)	30	7.1%	59	14.0%	113	26.8%	150	35.6%	69	16.4%	219	52.0%
Family & friends (n=422)	56	13.3%	81	19.2%	114	27.0%	85	20.1%	86	20.4%	171	**40.5%**
Pharmacies (n=422)	67	15.9%	65	15.4%	87	20.6%	102	24.2%	101	23.9%	203	**48.1%**
F2f contact (n=422)	32	7.6%	25	5.9%	45	10.7%	76	18.0%	244	57.8%	320	**75.8%**

**N is the number of respondents that have rated the information source.*

***% represents the percentage of cases in the general population.*

♣N represents the number of Internet users that have rate this information source accordingly.

♦% represents the percentage of cases among Internet users that have rated this information source.

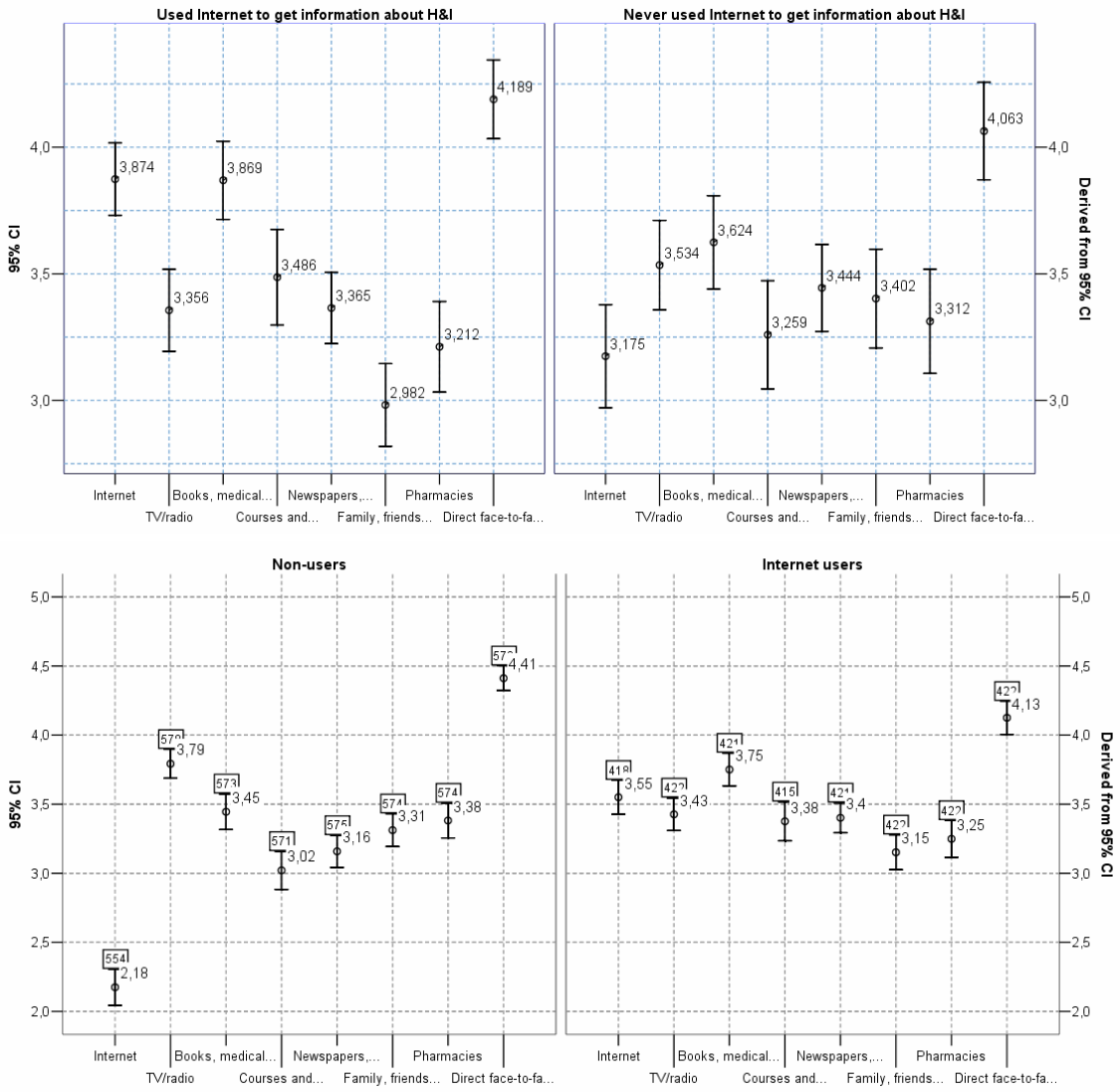


Figure 10. Rating of information sources on H&I: Internet users (n=422); non-users of the Internet (n=578); Internet users for H&I (n=229); Internet users but not for H&I (n=193).

When comparing in Table 5 the ratings by the general population and Internet users, there are indications that a *new online culture* emerges for Internet users. The perceived value of TV/radio (57.7% for the general population vs. 50.2% for Internet users) and the Internet (38.1% for the general population vs. 55.3% for Internet users) are reversed in the last column of Table 5 corresponding to important or very important (4+5). To a lesser extent the same is true for f2f contact with physicians (75.8% vs. 80.5%), but also family & friends (40.5 vs. 44.7%) and pharmacies (48.1% vs. 52.2%), which are all rated consistently lower by Internet users than by non-users. These indications are further supported by confidence rates and mean values shown in Figure 10, as Internet users for H&I clearly value highly the Internet (*m=3.874, s=1.083*), much higher than non-users of the Internet, which deem it as rather insignificance source of information for H&I (*m=2.18, s=1.580*). On the other hand, for all categories f2f contact with health professionals is clearly of the highest importance. It is only among Internet users that the new online culture can be identified.

4.3 Online activities related to H&I

In Greece and worldwide, the Internet has the potential to affect the decision of eHealth consumers on H&I issues. The power of the Internet and the underlying culture change are revealed with our findings that more than half the Internet users for H&I consult the Internet to make up their mind whether to consult a physician. In addition, almost one out of two Internet users for H&I looks for information on the Internet before and after a medical appointment.

Table 6: H&I related activities on the Internet among Internet users for H&I (n=229).

H&I related Activity on the Internet	N*	%**
Read about H&I	215	93.9%
Search for information to decide whether to consult a physician	135	59.0%
Search for information after a medical appointment	114	49.8%
Search for information prior to medical appointment	112	48.9%
Interact with health professionals you have not met before	64	27.9%
Participate in forums or self help groups (focusing on H&I)	57	24.9%
Order medicine or other H&I products online	17	7.4%

**N is the number of cases that selected the specific option.*

***% represents the percentage among Internet users for H&I.*

Most Internet users for H&I in Greece consult the Internet when they are about to make a decision about their health. The prevalence and impact of online activities relevant to H&I on the attitude and decision making of respondents were investigated with a closed question suggesting the alternatives shown on Table 6. An astounding 93.9% use the Internet primarily as an information source for H&I. Just 27.9% have interacted with physicians they hadn't met before, 24.9% have participated in self-help groups or forums, while just 7.4% have ordered pharmaceuticals online.

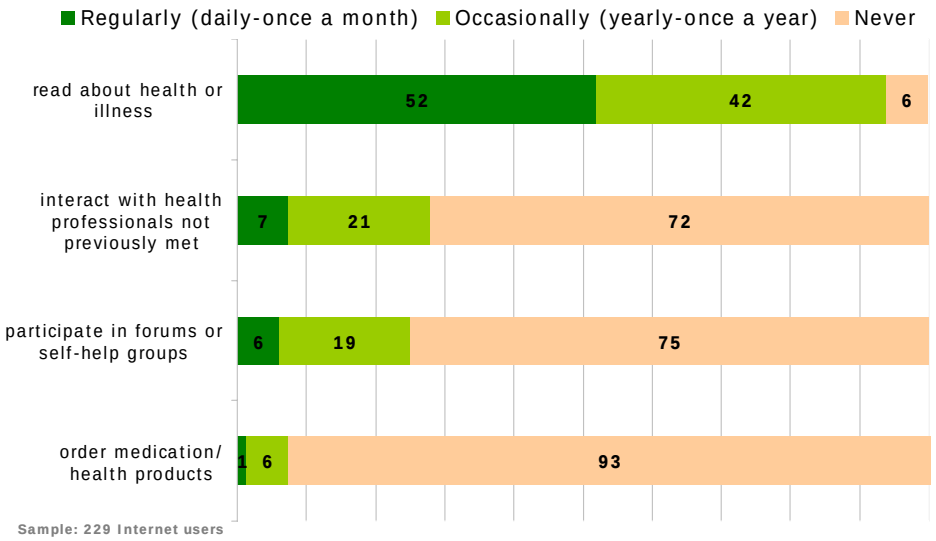


Figure 11: Frequency of H&I-related activities among Internet users for H&I (n=229).

Figure 11 provides some further data as to the frequency of various online activities related to health and illness. One may observe that Internet users in Greece have

experimented with online services for H&I, but the predominate online activity is reading for H&I. Aspects of interactivity relating to online services for H&I are still not appreciated by Internet users in Greece.

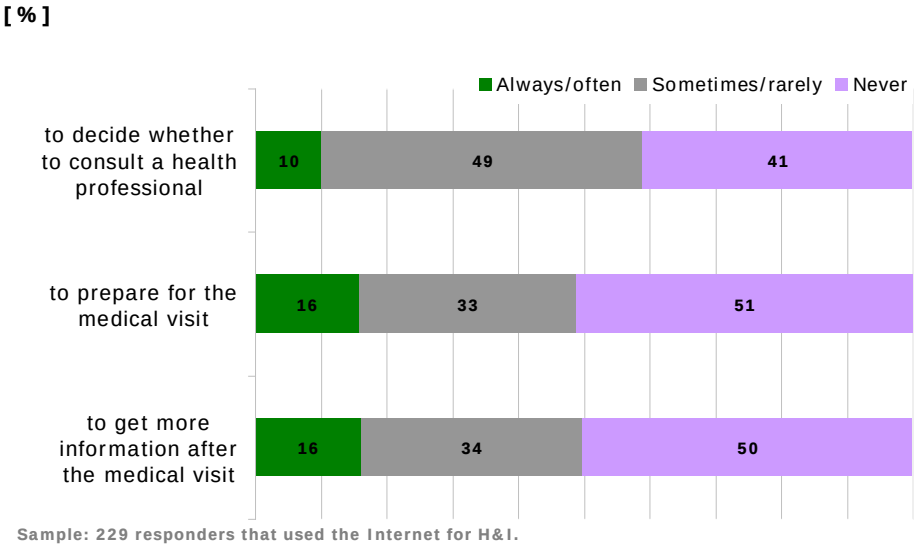


Figure 12: Internet use for Internet users for H&I to decide whether to consult a health professional (n=229).

The percentage of Internet users that regularly access the Internet to decide whether to consult a health professional is close to 10%. However, another 49% admit to do it occasionally (Figure 11). The percentage of Internet users for H&I that regularly access the Internet before or after an appointment is 16%, while 49% as shown in Figure 12.

Although currently only 17 persons (1.7% of the general population) have ordered medication or H&I related products on the Internet (Table 6), once *e*-Commerce is more widely and culturally accepted in Greece this percentage is expected to increase as well. These findings are consistent with the low penetration of *e*-Commerce in Greece which has been reported around 2-2.5% by Eurostat in 2005 [13].

Table 7: Effects of Internet search on Internet users for H&I (n=229).

Effect of Internet search for H&I	N*	%**
Feeling of reassurance or relief	134	58.5%
Suggestions or queries on diagnosis or treatment to the family doctor or specialist	128	55.9%
Willingness to change diet or lifestyle	83	36.2%
Feeling of anxiety	73	31.9%
Making/cancelling or changing an appointment with your family doctor	17	7.4%
Changing medicine without consulting your family doctor or specialist	5	2.2%

**N is the number of respondents among Internet users for H&I that selected the specific option.*
***% represents the percentage among Internet users for H&I.*

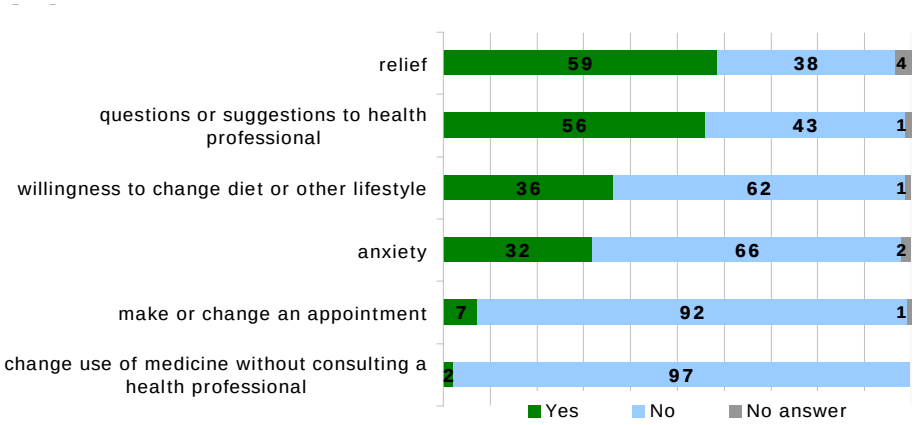


Figure 13: Effects of the Internet on Internet users for H&I (n=229).

According to our results, online search for H&I has a positive effect on the attitude and lifestyle of people in Greece (Figure 13, Table 7). After searching the Internet on H&I issues, most respondents have reported feelings of relief or assurance. Only one third of respondents felt anxiety and a very low percentage (5 respondents) changed their medication without prior consultation with their family physician. On the other hand, 55.9% came up with suggestions or questions on diagnosis and treatment for their family doctor or specialist**.** The fact that almost three out of five respondents have addressed questions or suggestions to their family doctor or specialist attests to the impact of the Internet on awareness and health empowerment.

4.4 Assessment of H&I website quality criteria

A critical aspect in the promotion and acceptance of online services for H&I and eHealth in particular, is the way that Internet users for H&I evaluate the website of a medical practice or more generally, websites with medical content. Such a website provides information and in some cases, services, advice, or guidance to potential eHealth consumers. According to a 2002 Eurobarometer flash report [7], 23% of the medical practices in EU15 and 10.0% of the medical practices in Greece have a website offering administrative information and in some cases health information and appointment scheduling.

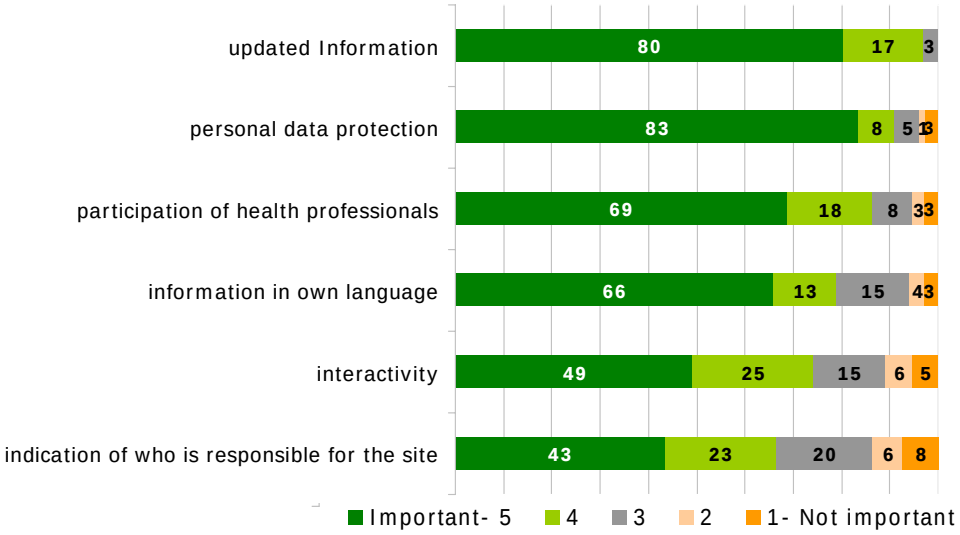


Figure 14: Quality criteria for H&I websites by Internet users for H&I (n=229).

A closed question prompted respondents to rate on a 5-point Likert scale seven evaluation criteria for H&I websites: up-to-date information, security, involvement of health professionals, language, interactivity, and indication of sponsorship. Language was included as prior surveys have indicated that most people prefer to access information in their own language [4]. Security and confidentiality of personal information was also included due to the proliferation of bots, viruses, and other malware that infect virtually any unprotected computer connected to the Internet, frequently resulting in unauthorized access to personal data. H&I information, originating from health professionals, affects the quality and prestige of the presented content. In addition, interactivity i.e. the ability to interact with other people and health care professionals online could be perceived favourably by future eHealth consumers. Availability of up-to-date medical information and clear indication of sponsorship i.e. who is responsible for the portal, were the final two criteria rated by Internet users for H&I (Figure 14).

Respondents consider up-to-date content as the most important evaluation criterion for H&I websites (97.0% consider it important or very important) as shown in Figure 14. Furthermore, as shown in Figure 15, the confidence interval associated with up-to-date information is narrower than for any other evaluation criterion, reinforcing the perception of the Internet as a knowledge resource for H&I. Respondents most likely presume that health professionals participate in the collection of medical information presented on a H&I website. Participation of health professionals was rated third with 87.0% of the respondents considering it important or very important.

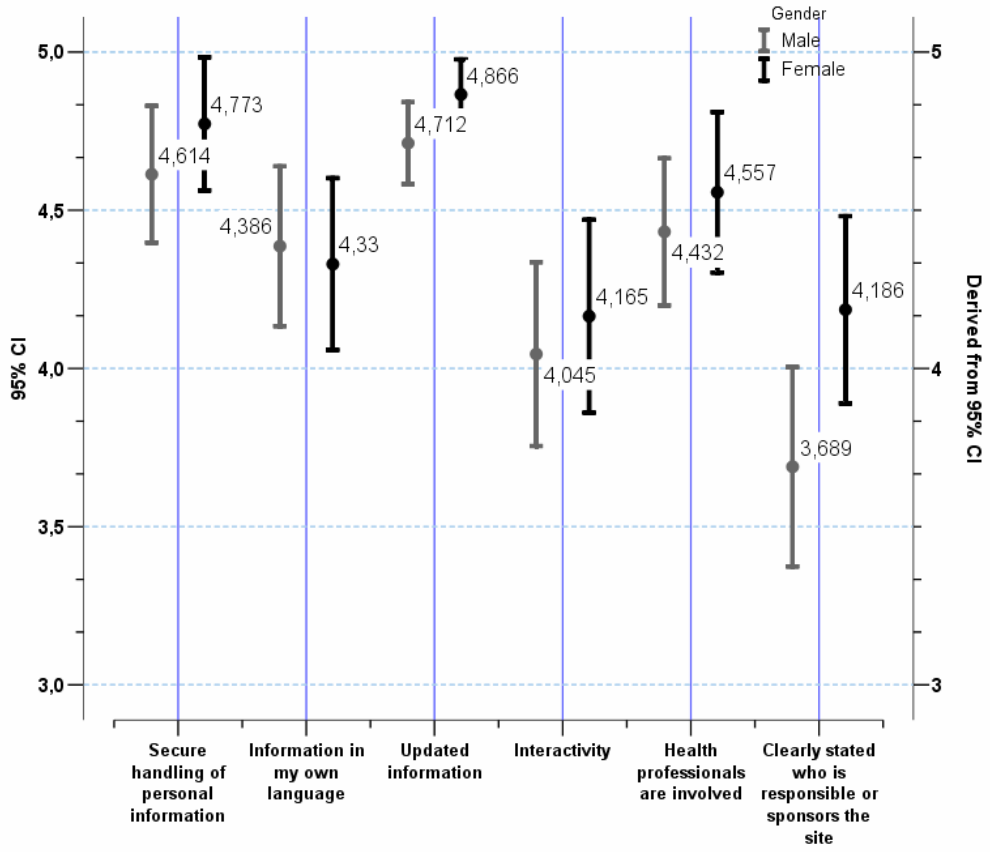


Figure 15: Rating of quality criteria for H&I websites by male and female Internet users for H&I (n=229): mean importance and confidence intervals.

Secure handling of personal information was rated second among the evaluation criteria (91.0%), reflecting the strong security & privacy concerns of potential eHealth consumers regarding web site access. However, respondents do not have equally strong concerns in potential online communication with health professionals. This finding can be attributed to raising concerns about security and confidentiality, as well as the continuing trust of respondents on health professionals and email exchange discussed in the next section.

The availability of information in Greek comes up fourth in the preferences of the respondents, followed by interactivity and clearly stated sponsorship. The low impact of language is due to the prevalence of the English language among Internet users in Greece. On the other hand, the relatively low importance (74.0%) of interactivity can be explained by the low interest in online interaction with health professionals. Note that although there is no statistically significant difference between men and women when evaluating a website, women consider up-to-date information more important than men do. The same holds true for clearly-stated responsibility for the site as shown in Figure 15. Presumably, when Internet for H&I is available and affordable to a wider population, language and quality labelling like HON will become more important [30,46].

4.5 Online contact with health professionals

Online contact with health professionals was further investigated by asking whether respondents have contacted their family doctor or other health professionals on the Internet. If the response was positive, the purpose of contact was further investigated with a list of common activities. Otherwise, a list of reasons for not contacting a health professional on the Internet was proposed.

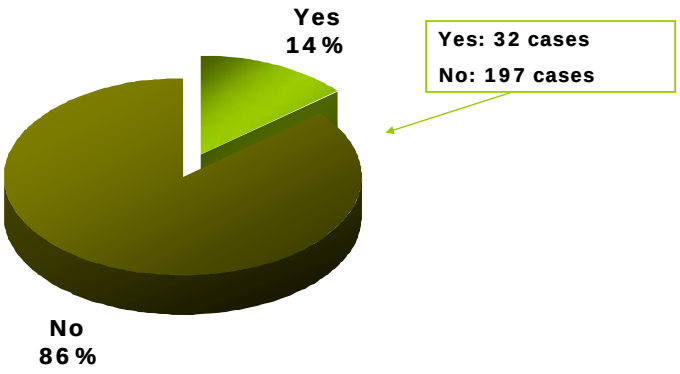


Figure 16: Percentage of Internet users for H&I having contacted the family doctor or a health professional online (n=229).

The vast majority of Internet users for H&I (86.0%) have never contacted a health professional on the Internet (Figure 16). The main reason for not contacting a physician online, shown on Table 8 and Figure 17, was their preference for personal contact (66.0%), rather than lack of opportunity (8.6%). Very few people were worried about confidentiality in using the Internet to contact health professionals (3.6%), despite findings shown in the previous section. This might be surprising if one considered the importance of confidentiality and personal data protection when evaluating H&I websites. These findings may be attributed to the limited adoption of

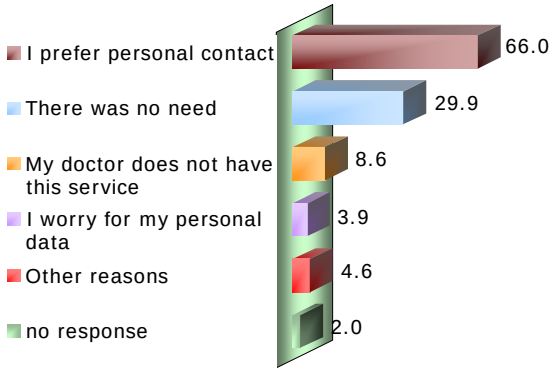
online services for H&I and the low awareness regarding issues that surround them. As recorded in the 2005 year book of statistics by Eurostat [13], people in Greece are less concerned with security and privacy than in the EU25: 0.4% have encountered fraudulent payment with credit card use, 0.5% have experienced personal information sent out on the Internet, and 17.5% have dealt with computer viruses. The correspondent percentages in EU25 are 1.3%, 3.8%, and 34.5% respectively.

Table 8: Reasons for not contacting the family doctor or health specialist online among Internet users for H&I that have never contacted a health professional online (n=197).

Possible reason	N*	%
I worry about confidentiality	7	3.6%
I prefer face-to-face communication	130	66.0%
My family doctor doesn't offer such services	17	8.6%
There was no need to contact a health professional online	59	29.9%
Other	9	4.6%

**N is the number of respondents among Internet users for H&I that selected the specific option.*
***% represents the percentage among 197 Internet users for H&I that have never contacted health professionals online.*

For the 32 respondents that reported having contacted the family doctor or a health professional online, it was to access their website (15 people), to schedule an appointment online (9 people), and to ask about their health (9 people). Just one person reported accessing their EHR online.



Sample: 190 respondents that have used the Internet for H&I, but have not approached a health professional online.

Figure 17: Reasons why Internet users for H&I do not approach the family doctor or health professionals online (n=190).

4.6 Selecting a family doctor or specialist

Response to an earlier question on online activities related to H&I revealed that respondents do consult the Internet before they make decisions about their health, as 59.0% of Internet users for H&I search online for information to help them decide whether to consult a health professional (Table 6). Clearly the Internet helps respondents be informed and active participants in the management of their health. Does this affect their selection of a doctor?

To investigate the extent to which online services for H&I affect the selection of a family doctor or specialist, a closed question asked respondents to rate the importance of ten criteria. Six of the selection criteria refer to eHealth or online services for H&I:

online EHR access, medical practice has a website, support for reminders in the form of short messages on the mobile phone, communication via email, online appointment scheduling, and electronic prescription. Although online prescription or renewal i.e. ePrescription, is not possible under the current regulatory framework in Greece [5,8], it was still included to obtain uniform results and trends across Europe. The selection criteria also included accessibility and convenient office hours, cost of services, recommendations by others, and information on the medical practice.

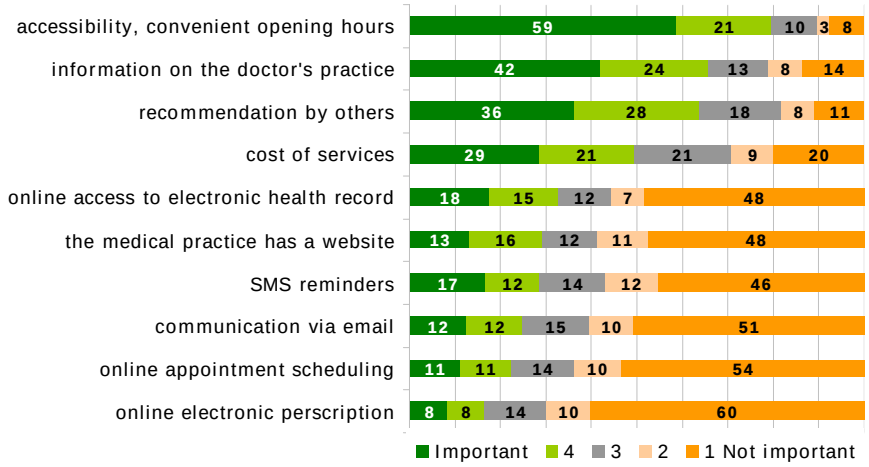


Figure 18: Assessment of selection criteria for a family doctor or specialist in the general population (n=1000).

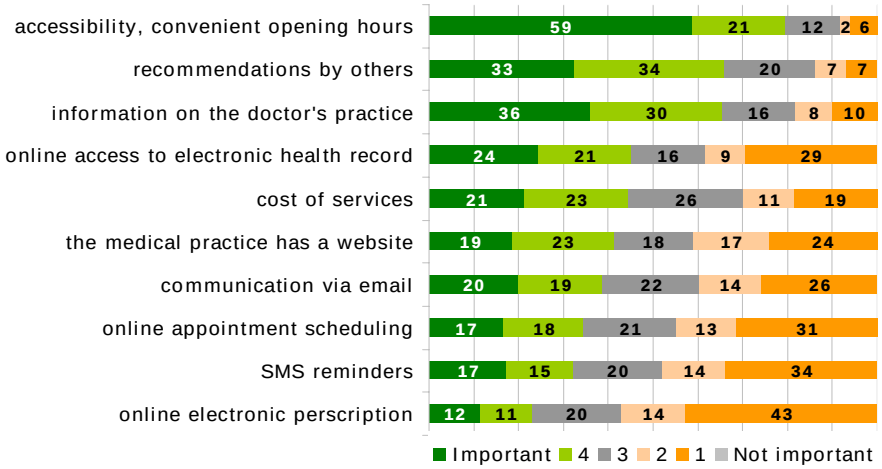


Figure 19: Assessment of selection criteria for a family doctor or specialist among Internet users (n=422).

The general population mainly selects a family doctor or specialist based on accessibility and convenient office hours (89.0%). Information on the practice and recommendations by others were rated important or very important by 66.0% and 64.0% of the respondents respectively (Figure 18). All other criteria ranked lower. These findings can be explained by the high value of personal contact (recall f2f contact with physicians in Table 5). The non-response rate for selection criteria addressing online services was slightly higher in the general population (0.7-4.2%)

compared to the Internet users (0.2-2.1%) suggesting that some of the respondents had never considered that such options exist.

Nevertheless, a nascent interest in online services for H&I can be identified in our findings. Excluding ePrescription, the general population in percentages ranging from 22% to 33% and the Internet users in percentages ranging from 32% to 45% for different types of online services, consider eHealth or online services for H&I important or very important when selecting a family doctor or a specialist (Figure 18 and Figure 19). Even though not widely available, online access to one's EHR is the top-rated eHealth-related selection criterion for a family doctor or specialist, as 33.0% of the general population and 45.0% of the Internet users consider it important or very important. Online access to one's EHR is considered important or very important by a higher percentage than the existence of a website for the medical practice. Existence of a website for the medical practice is important or very important for 29.0% of all respondents and 42.0% of the Internet users. In particular, the percentage of Internet users who consider online access to one's EHR as very important (24%) is higher than the percentage of those that consider the cost of services (21%) or any other online service as very important (20% or lower as shown on Figure 19).

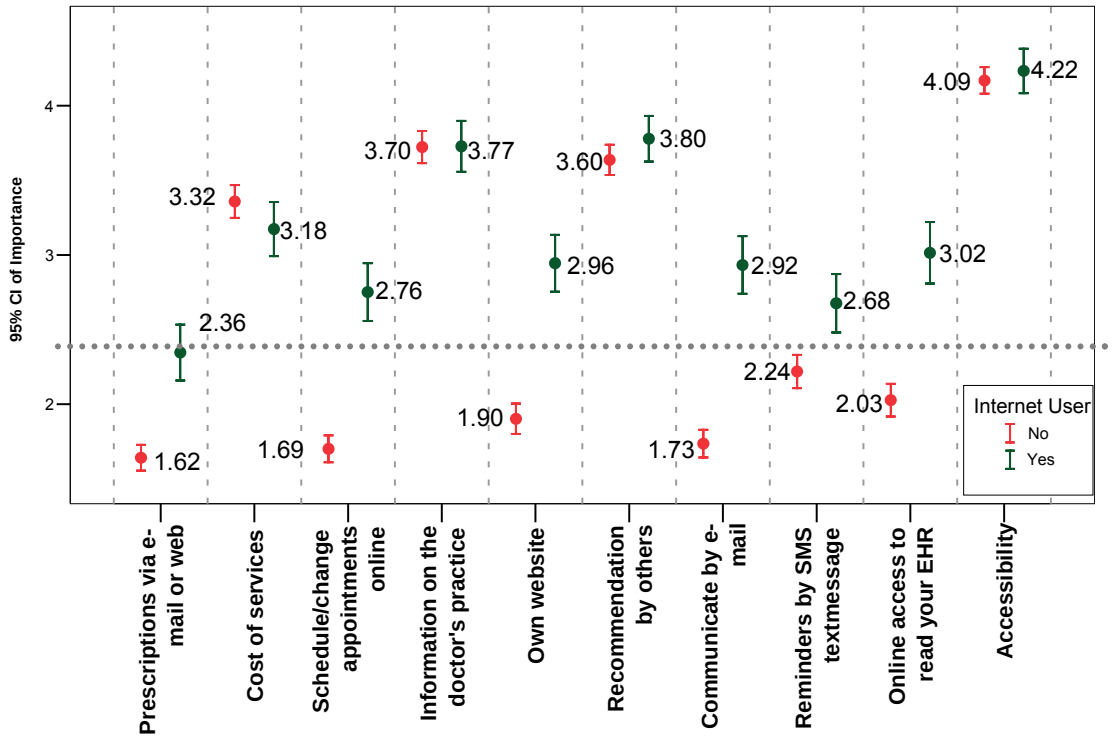


Figure 20: Significance of selection criteria for a family doctor or specialist among Internet users (n=422) and non-users (n=578): mean value and confidence interval.

Figure 20 provides an alternative view showing the mean importance and confidence interval of selection criteria among Internet users and non-users. There is no substantial difference in ratings for general criteria such as accessibility, recommendations, cost of services, and information on the doctor's practice. All of them have a mean importance above 2.36 both for Internet users and the general population. However, Internet users rate online services consistently higher than non-users (note the dotted horizontal line in Figure 20). Actually non-users rate most

online services below 2 (of little importance). The only exceptions are SMS reminders and online access to the EHR. SMS reminders correspond to the online service for which the least difference between Internet users and non-users is observed (Figure 20). This finding can be explained by the prevalence of mobile telephony in Greece. Furthermore, scheduling appointments online, the availability of a website with information on the medical practice, the ability to contact the family doctor or a specialist by e-mail, and online EHR access are all clearly rated higher by Internet users than by non users. However, relatively low ratings and a wide confidence interval in the rating of online services by Internet users, suggests that the value of online services is not yet well established. Just like assessing evaluation criteria for H&I websites, findings reported in this section point to cultural differences among users and non-users of the Internet. Although the overall interest as reflected by importance ratings is rather low, there is a clearly identifiable difference for Internet users as regards the perceived importance of eHealth or online services for H&I, when selecting a family doctor or specialist.

4.7 Contact points with the health care system

The first of the questions designed specifically to address the attitude and perception of eHealth in Greece tried to establish the most frequent first point of contact with the health care system. The main reason was to establish the frequency that specific services e.g. health emergency, are employed and to compare that with the use of ICT including telephone. The respondents were given in a randomized list of options and were asked what it is they do when they or a person in their immediate family are sick. Figure 21 and Figure 22 contrast the results for the general population and Internet users for H&I.

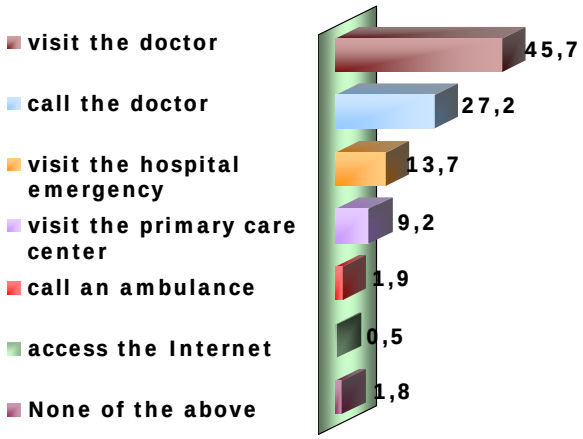


Figure 21: Typical behaviour when faced with a health problem for the general population (randomized options, n=1000).

When observing the distribution of the responses in the full sample (all respondents), it is interesting to compare it with the subset of the respondents that are Internet users for H&I. Apparently, Internet users are more inclined than the general population to call the doctor (compare 38.4 % with 27.2%). Also, Internet users are less inclined to visit the doctor's office (compare 45.7% with 39.3%). These findings further support the evolving communication and information needs (i.e. *online* culture) among Internet users.

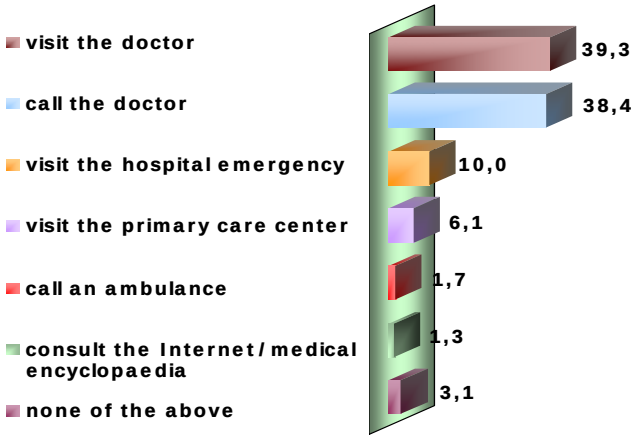


Figure 22: Typical behaviour when faced with a health problem for Internet users for H&I (randomized options, n=229).

4.8 Perception of telemedicine

Although it is quite ordinary to call up the family doctor when someone is ill, three out of four respondents told us that they do not feel comfortable with the idea of a medical visit via computer or video phone ("Telemedicine"). As shown in Figure 23, three quarters of the respondents do not perceive favourably the opportunity of online medical visits (non-response below 1.0%). Given the context of online services for H&I, this should be considered as a further indication that when it comes to health issues, personal contact with the family physician is preferable to impersonal contact with an unknown health professional.

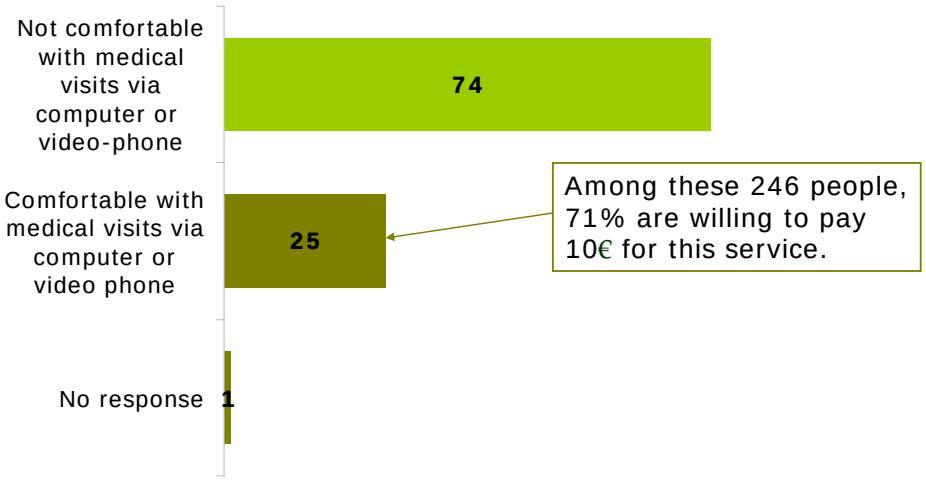


Figure 23: Attitude of respondents regarding online medical visits (n=1000).

Figure 24 differentiates the attitude of the general population regarding medical visits via computer or video phone based on their use of the Internet. Note that just one out of three Internet users and two out of ten non-users of the Internet have a favourable disposition towards online medical visits. These findings suggest that while Internet users are hesitant, non-users are really uncomfortable with the concept of telemedicine.

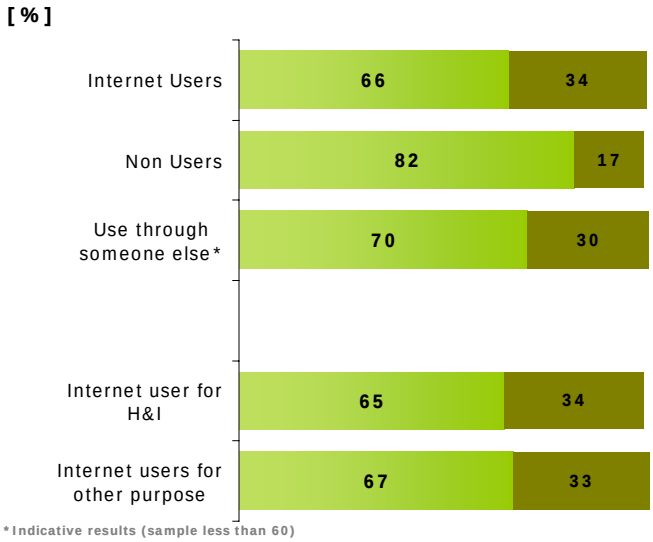


Figure 24: Attitude regarding online medical visits by Internet use (negative left).

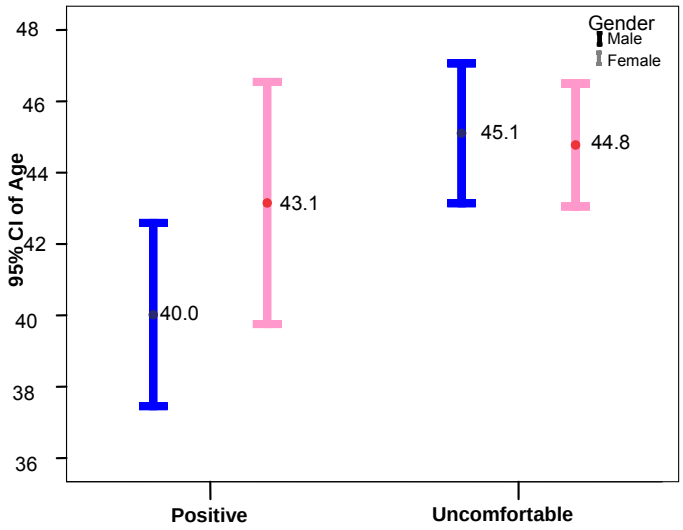


Figure 25: Perception of a remote visit by computer or video-phone across age and gender in the general population (n=1000).

People that accept the idea of telemedicine are typically in their forties (*95% CI, m=40.6, 39.06-42.16*). There is very strong statistical evidence (χ^2*=20.782, p-value=0.000*) that men are more keen to telemedicine (62.0%) than women. These findings can be explained by the fact that men are more inclined to use the Internet (recall that 59.5% of the Internet users are male). As shown in Figure 25, women at the age 40-45 (*95% CI, m=43.1, 39.7-46.5*) and men at the age 37-43 (*95% CI, m=40.0, 37.4-42.6*) are the main supporters of the idea (by more than 79.0%). Women start to accept the idea when at the peak of family and professional responsibilities. Statistically significant differences also exist between age groups, higher and lower education levels, users and non-users of the Internet for H&I, and residents of urban and rural areas (data not shown). Those favouring medical visits via computer or video-phone, with high probability, also have a family with kids, university education, and high income.

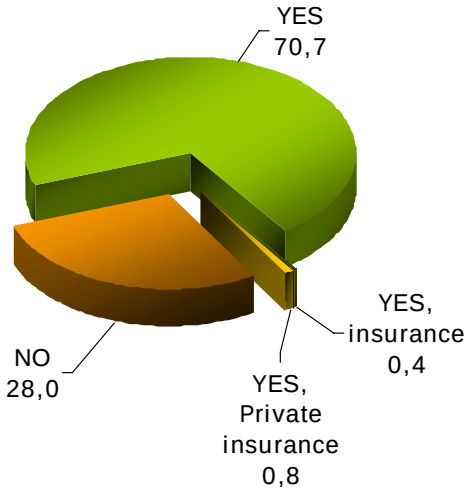


Figure 26: Responders willing to pay 10€ for a medical visit via computer or video phone among respondents in the general population which favor telemedicine (n=246).

Over 70.7% of those inclined to use telemedicine would agree to pay €10 per telemedical visit (Figure 26). Thus, although penetration of telemedicine is low, respondents that support the concept of telemedicine are also willing to pay a fee for medical visits by computer or video phone. This finding is of particular interest because it could mean that respondents are prepared to accept telemedicine as an equitable medical procedure.

4.9 Granting remote access to medical data

In central Europe, particularly on the borders between Belgium, the Netherlands, and Germany, it is common to seek cross-border care, or even request a second opinion from cross-border health professionals to expedite delivery of care [51-52]. In Greece, CT scans are sent by ambulance to another hospital for a second opinion. However, more than half the respondents are hesitant to grant remote access to their medical data, even to expedite diagnosis.

Table 9: Attitude towards granting remote access to one's medical data to expedite diagnosis in the general population (n=1000).

Response	N	%
To get a quick and valid diagnosis. I would grant access to my medical data	440	44%
Even if I were to receive a quick and accurate diagnosis. I would not grant remote access to my medical data	535	53.5%
Total	975	97.5%
I do not know	25	2.5%
Total	1000	100%

**N is the number of respondents in the general population that selected the specific option.*
***% represents the percentage among the general population (n=1000).*

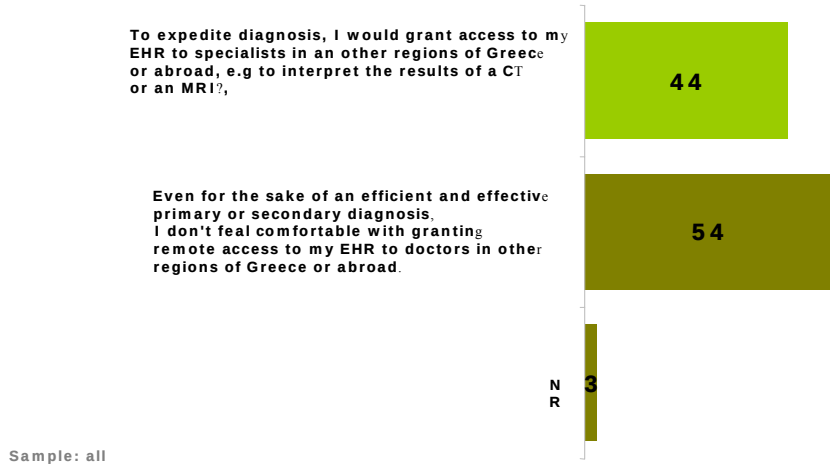


Figure 27: Attitude regarding granting remote access to one's medical data in the general population (n=1000).

Just 46.0% of the general population are comfortable with granting access to their medical data even for the sake of an accurate, faster or more effective diagnosis (Table 9, Figure 27). One out of two respondents feels uncomfortable with both telemedicine and granting remote access to their medical data. Just one out of five respondents feels comfortable with both services (Figure 28). The non-response rate for the general population is noticeable: 2.5% did not respond.

Attitude towards a medical visit via computer or video-phone	Attitude towards remote access to medical record by health professionals elsewhere			Total
	Positive	Do not feel comfotable	Non answers	
Positive	19	6	0	25
Do not feel comfortable	25	47	2	74
Non answers	0	1	0	1
Total	44	54	3	100

Figure 28: Correlation of responses to the national questions regarding medical visits and granting remote access to one's medical data in the general population.

Figure 29 shows that Internet users are more favourable than non-users towards granting remote access to their medical data to expedite diagnosis (55% vs. 62%). There is also a slight difference between Internet users for H&I and non users (57% versus 52%). Furthermore, among Internet users for H&I, those that rate personal data protection and confidentiality as highly important (83% as shown in Figure 14), 55% are willing to grant online access to their medical data to expedite diagnosis. These findings suggest that awareness activities are necessary to promote eHealth among the general population and Internet users, paying particular attention to security and privacy issues.

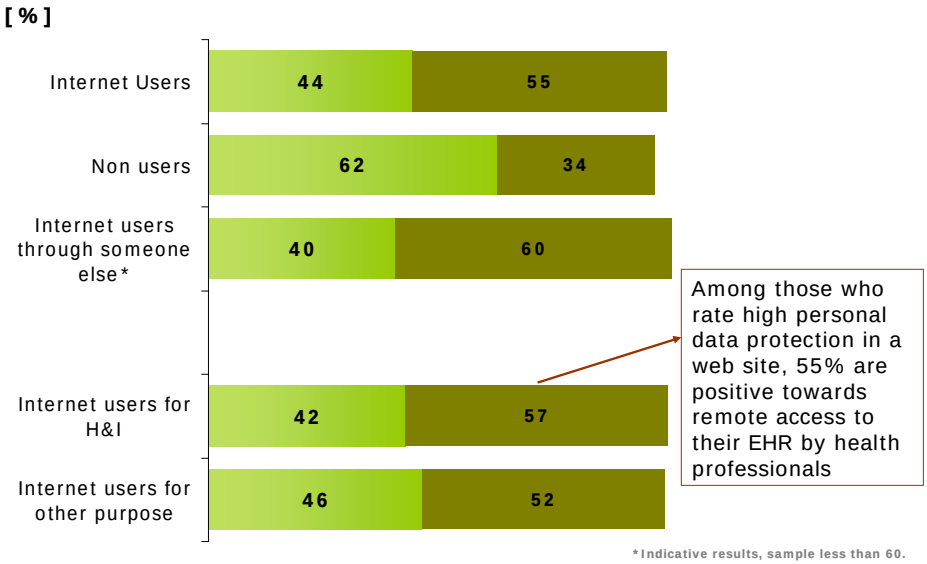


Figure 29: Attitude regarding granting remote access to one's medical data by Internet use (negative on the left).

As in the case of a medical visit by computer or video phone, those in favour of granting remote access to their data are likely to be in their early forties (*95% CI, m=40.6, 39.1-42.1*). They are also typically of higher education, use the Internet (also for H&I), and live in urban areas. Unlike telemedicine, men and women are not divided over the issue of granting remote access to their medical data. Although the percentage of respondents accepting remote diagnosis is higher than that for telemedicine, survey results indicate that in general, older people do not trust or do not appreciate some applications of novel technologies in health care. They resist the adoption of eHealth, despite its promise for efficient and effective access to high quality care.

4.10 Willingness to access one's EHR online

Access to the Electronic Health Record (EHR) appears to be most attractive online service related to H&I. When asked if they would go online to access their EHR assuming they were given the opportunity, 61.7% responded positively. This is double the percentage of respondents comfortable with telemedicine as reported in Figure 23.

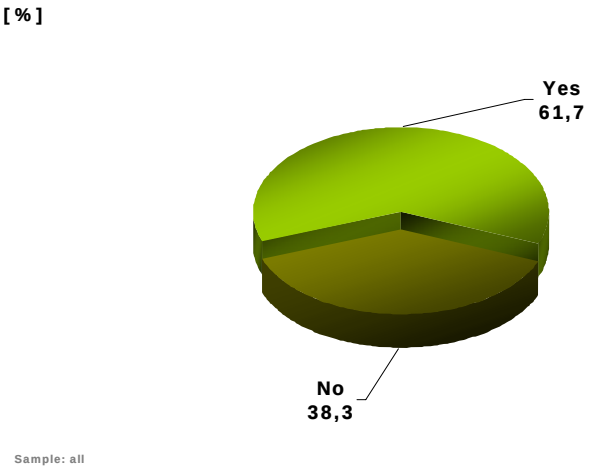


Figure 30: Willingness to access their own EHR online among the general population (n=1000).

In Figure 30, one may note an overwhelming difference in attitude and perception regarding the online access to the EHR among Internet users (76%) and non-users (48%). Note also the indicative results on Internet users through someone else (81%), pointing out to a clearly recognized need with huge potential for eHealth.

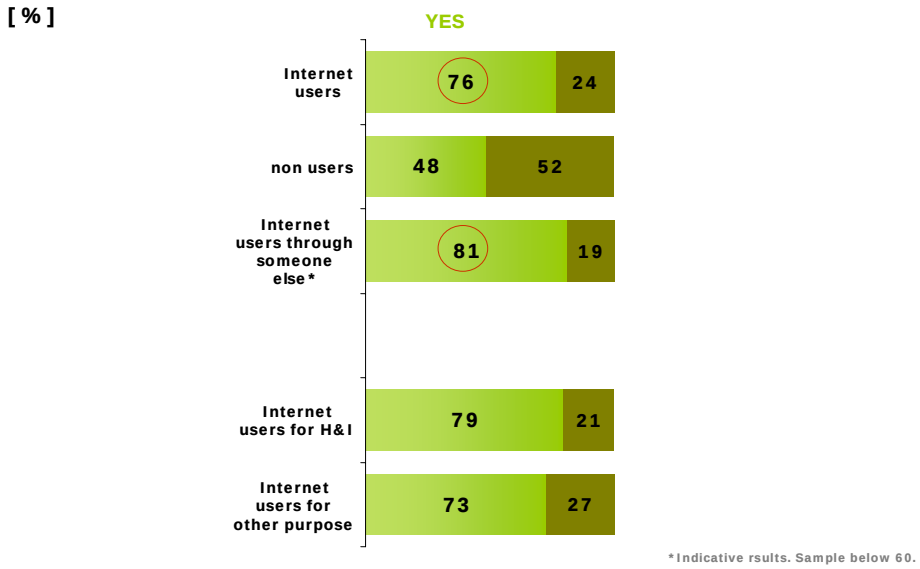


Figure 31: Willingness to access thier EHR online by Internet use.

Figure 31 shows the willingness of different groups to access their own EHR online to check out for example the results of recent examinations or a diagnostic report. Note that although the percentage is high among Internet users (78%), it also quite high for non-users (48%). The fact that one in two non-users of the Internet is willing to access their EHR online, indicates that the online availability of comprehensive services could also be the incentive of increasing use of the Internet.

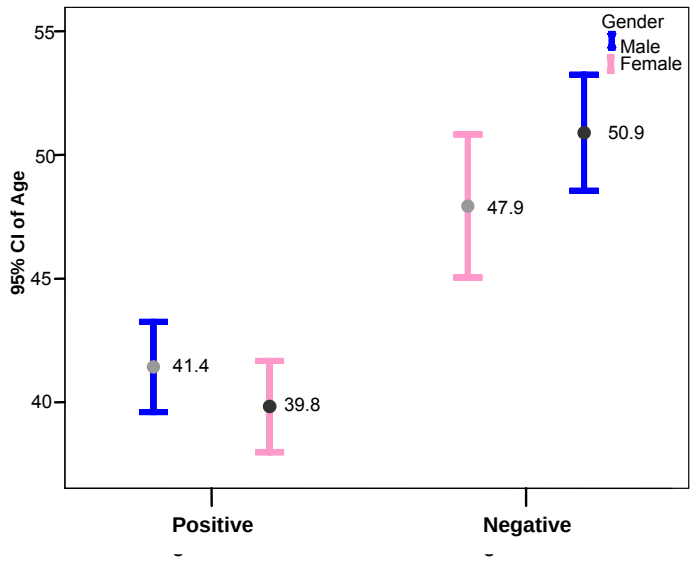


Figure 32: Willingness to access their EHR online across age and gender in the general population (n=1000).

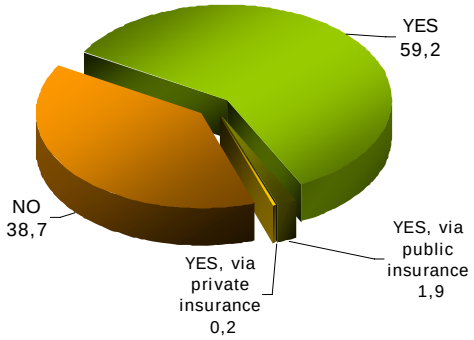


Figure 33: Attitude towards an annual fee of 30€ for online EHR access among those who would like to access their EHR online (n=617).

Male respondents are supportive to the idea of accessing their EHR online, particularly when they are young, have higher education, use the Internet, and live in urban areas. Comparing Figure 25 (telemedicine) and Figure 32 (access to EHR), it is worth noting that women are interested in their EHR at an earlier age (*95% CI, m=38.0, 39.7-41.7*) than men (*95% CI, m=41.4, 39.6-43.3*). Note also in Figure 34, that respondents aged 45-54 are more incline to pay for this service (70%) whereas the older ones aged over 65 are less incline (45%). This finding may originate from their socioeconomic status, their capability for paying and/or the extend of their needs for information on H&I.

Willingness to pay 30€ per year for online access to their EHR	Total	Age**					
		15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-80 years
Yes	61	59	65	61	70	60	45
No	39	41	35	39	30	40	55

**Statistically significant differentiation

Figure 34: Willingness of respondents to pay 30€ per year to access their EHR, by age group among those that are would access their EHR online (n=617).

Additionally, as reported in Figure 33, 61.3% of those that look forward to accessing their EHR online would agree to pay €30 a year for the service (2.0% via insurance). This is an indication that people in Greece perceive online access to their EHR as a significant added-value service. The overall percentage of respondents interested in accessing their EHR online is almost twice that of current Internet users, reflecting a potentially high impact eHealth service.

4.11 Digital Divide in Greece

Studies by Eurostat, Eurobarometer and others regularly monitor the digital divide that separates the more developed from the less developed regions in Europe [12,39]. However, findings of the eHealth trends survey indicate that there is also a digital divide within Greece manifested by the statically significant difference between the perception of the Internet as a valuable information source for H&I and its actual use in different regions of Greece.

The relation between perception and actual use of the Internet for H&I appears on Table 10. Between 37.7%-38.5% of the population perceives the Internet as valuable information source regardless region of residence. However, reported use of the Internet for H&I varies considerably across regions. Starting at 18.5% in Crete & the Aegean and 19.1% in other mainland areas, it reaches 29.5% in the urban centers of Attica and Thessaloniki. This discrepancy can be attributed to lack of broadband infrastructure, shortage of computing equipment, and high costs of Internet connectivity.

Table 10: Perception and use of Internet as an important information source for H&I in different regions of Greece in the general population (n=1000).

Region of Residence	Attica & Thessaloniki		Crete & Aegean		Other		Total	
Internet as a source of information about H&I								
	N	%	N	%	N	%	N	%
Important or very important	136	37.7%	35	38.0%	200	38.5%	371	38.2%
Not important/indifferent	225	62.3%	57	62.0%	319	61.4%	601	61.8%
Total	361	100.0%	92	100.0%	519	100.0%	972	100.0%
Non-response rate		*3.2%*	*0*	*0.00%*	*12*	*3.1%*	*28*	*2.9%*
Use of the Internet for H&I								
	N	%	N	%	N	%	N	%
Internet Users for H&I	110	29.5%	17	18.5%	102	19.1%	229	22.9%
Internet Users for other reasons	74	19.8%	15	16.3%	104	19.4%	193	19.3%
Non-users of the Internet	189	50.7%	60	65.2%	329	61.5%	578	57.8%
Total	373	100.0%	92	100.0%	535	100.0%	1000	100.0%

**N is the number of respondents in the corresponding geographic area that selected the specific option.*
***% represents the percentage among the general population (n=1000).*

Table 11: Attitude towards online EHR access in different regions of Greece in the general population (n=1000).

Region of residence	Would you access your EHR online?				TOTAL
	YES		NO		
	N*	%**	N	%	
Urban areas of Attica & Thessaloniki	236	63.3%	137	36.7%	373
Crete & Aegean	67	72.8%	25	27.2%	92
Other	314	58.7%	221	41.3%	535
Total	617	61.7%	383	38.3%	1000

**N is the number of respondents in the corresponding geographic area that selected the specific option.*
***% represents the percentage among the general population (n=1000).*

Survey results indicate that the region of residence affects the use of the Internet in general and for H&I as well as the attitude of residents towards telemedicine and online EHR access, but not in the same way. Despite low Internet penetration in Crete & the Aegean (34.8% vs. 49.3% in urban areas, shown in Table 10) residents are more willing to access their EHR online than respondents living in other regions. In Crete & the Aegean, the percentage of respondents that favour online access to their EHR is 72.8%. This percentage is 9.5 points higher than in the urban, substantially more developed regions of Attica and Thessaloniki (Table 11).

This fact points to a recognised need, but could also be attributed to the pioneering work of HYGEIAnet (www.hygeianet.gr) the regional health information network of Crete [53,54], well-known for introducing the concept of the integrated EHR as a comprehensive online catalogue of an individuals' contacts with the health care system.

4.12 Intention to use the Internet for H&I

The eHealth Trends survey also evaluated the view of respondents regarding H&I-related online activities in the future. A closed question investigated the preferences of the respondents given that they had the opportunity of Internet access in the next twelve months. Respondents reported on whether they are likely to search for H&I information, consult a health professional online, participate in forums or self-help groups, and order medicine or other health products on the Internet.

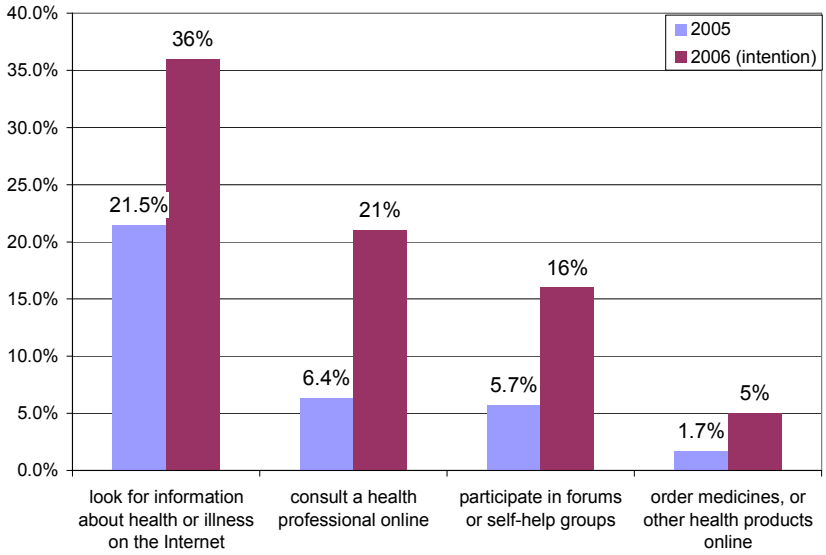


Figure 35: Current use of the Internet for H&I and intention to use it during the next 12 months in the general population (n=1000).

Figure 35 contrasts intended use of the Internet for H&I with the reported level of Internet use for H&I, as identified by the 1st wave of eHealth trends survey. 36.0% of the respondents consider it likely to surf the Internet for information on H&I, a percentage that corresponds closely to that of respondents who consider the Internet as a valuable information source for H&I (38.1%). In addition, 21.0% consider it likely to contact a health professional online, while 5.0% may order drugs or other health products online.

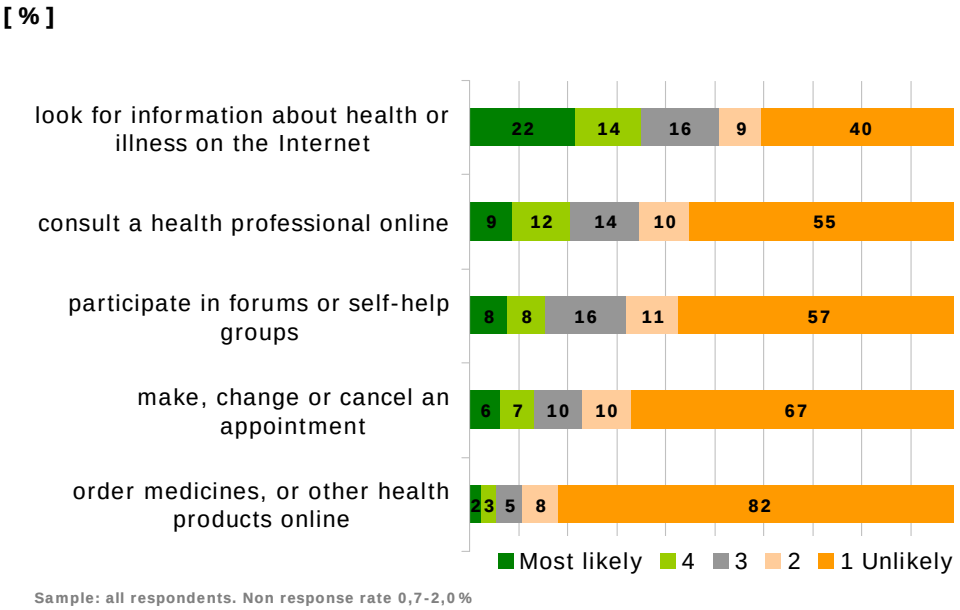


Figure 36: Future trends regarding Internet use for H&I in the general population (n=1000).

Figure 36 reflects the intention of respondents regarding different online services in the next twelve months. Note that almost half the respondents consider it unlikely to use online services for H&I with *e*-Commerce being the least likely of all (90% consider it unlikely). The second wave of the eHealth trends survey that will be reproduced in eighteen months will provide the opportunity to validate reported trends and follow-up on the emerging *online* culture among current and future eHealth consumers.

5 Discussion

Greece has the lowest levels of Internet use in Europe, while the main use of the Internet for H&I is information seeking. Currently there are small indications for the penetration of eHealth or online services for H&I. The main reason for this attitude is that existence of a professional website, online appointment scheduling, or email consultations are currently not recognized as an option, and do not fulfil the recognized need for personal contact with health professionals that prevails particularly in the general population. Young people are using the Internet and a new culture is emerging that values the Internet as a reference knowledge source, while at the same time promoting the use of eHealth services. For Internet users, the Internet gradually takes the place of TV/radio as the preferred medium for news and entertainment for H&I. However, both Internet users and the general population apparently consider that personal contact with health professionals cannot be substituted with innovative technologies and eHealth. Online access to one's EHR is perceived as the most important among online services that could be provided to the patients. Finally, advocates of eHealth are willing to pay for eHealth, directly or through public or private insurance.

Prior to the eHealth Consumer Trends Survey in Greece, a survey was conducted in 2002 by the SIBIS project (Statistical Indicators Benchmarking the Information Society) [4] focusing on eHealth and more specifically on the usage of the Internet to search for health-related information. The sample of about 12000 used for the SIBIS project was taken from the EU Member States, the US and Switzerland and included ages 15 and up. SIBIS sample is very small at the country level and doesn't allow making accurate national analysis. Upon comparing the results from the two surveys, one notices the similarities concerning age, gender, employment status and the reasons one chooses to go online for additional information. For example, it is generally true that a young educated man, who holds a white collar position, is more likely to go online. For the most part, users going online for health-related information primarily to fulfil their need for better knowledge of issues pertaining to their health and secondly to cross-check a diagnosis, thus seeking additional information and extra medical opinions. The SIBIS report also stresses the importance of language in order to avoid health divides, aiming for equal access and easy retrieval of the information each user needs at any given time. Contrary to that, our results indicate that language is not all that important for the current population of Internet users for H&I in Greece. However, quite likely this situation will change as the Internet is more widely used.

Superusers of the Internet for H&I in Greece, those respondents that use it at least once a month, are just 13% of the general population. They are predominately men, educated, white collar workers, 25-44 years old and live in the city. They use the Internet to get information for H&I (95.4%), to decide whether to visit a health professional (66.2%), to be further informed before and after a medical appointment (59.2% and 57.7% respectively), contact health professionals online (34.6%), participate in forums and self-help groups (28.5%), and order medicine or other health products (7.7%) online.

The fact that *Superusers* live in urban areas also confirms a number of studies mainly by Eurostat [11-14] which monitor the digital divide in Europe. One can also conclude from these findings the role of the socio-demographic divide setting a certain group of people at a disadvantage as their access to the Internet is limited or not available. Although ICT technologies have become widely available, accessible,

and affordable, a cultural and social gap can be identified between Internet users and non users. This divide, frequently attributed to the lack of infrastructure, computer equipment, incentives, or skills, affects the society as a whole. It can be identified in Greece, among rural and urban communities, among young and older people, among the more and less educated, among men and women.

This divide in Greece appears to be wider than the corresponding divide in Europe and affects mainly those living in rural areas with small populations, lower education, and scarce opportunities to access the Internet. Many times, it is an issue of not having the opportunity or knowledge to go online, rather than a lack of need, desire or interest. This is evident in the results of the eHealth trends survey, where women once Internet users, they are also users of the Internet for H&I. Surveys in the Nordic countries suggest that at least their gender divide is slowly bridged as women receive higher education and employment [9]. Finally, both the eHealth trends and the SIBIS survey based on the fact that the younger age groups tend to be the *Superusers* and due to the ever-evolving availability and increasing Internet penetration, note that the percentage of users going online for H&I will most likely grow. Moreover, the quality of H&I information available on the Internet will be challenged by its very users, making it more reliable and trustworthy.

6 Conclusions

The results of the first wave of the eHealth consumer trends survey carried out in Greece concurrently with six other European countries reveals a number of interesting findings about the perception and the actual use of eHealth in Greece. First, there is indeed a digital divide in Greece that could be attributed to the lack of infrastructure and opportunity in the rural areas. The perception of the Internet in Greece as a source of information for H&I is positive, given that awareness about Internet services and eHealth in general is low. Even-though, the results of the eHealth trends survey indicate resistance to innovative eHealth technologies, people in Greece welcome the opportunity to access their EHR online and that is a starting point for promoting the use of the Internet for H&I, and in the long term eHealth.

Awareness activities are necessary for the citizens to recognize the benefits and establish a favourable image for eHealth. This is the only way to ease social inequalities and support the re-engineering of the health care sector providing high quality, affordable, and accessible health care to the citizens and visitors of Greece, even in the remote rural areas and the isolated islands of Aegean Sea.

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9 Appendix I: Questionnaire

9.1 Master Questionnaire (Greek Translation)

Ερωτηματολόγιο, Παγκόσμιος Οργανισμός Υγείας (WHO)/
Ευρωπαϊκή έρευνα για τις καταναλωτικές τάσεις σε θέματα ηλεκτρονικής υγείας (eHealth)

Εισαγωγή

Καλημέρα/ καλησπέρα, ονομάζομαι ....., και σας τηλεφωνώ από την εταιρεία δημοσκοπήσεων METRON-ANALYSIS εκ μέρους του Ιδρύματος Τεχνολογίας & Έρευνας. Αυτές τις μέρες διεξάγουμε μια έρευνα σχετική με την πληροφόρηση σε θέματα Υγείας, με την υποστήριξη της Ευρωπαϊκής Ένωσης και του Παγκόσμιου Οργανισμού Υγείας. Θα θέλαμε να μιλήσουμε με το μέλος εκείνο του νοικοκυριού σας που είχε τα γενέθλια του πιο πρόσφατα και είναι από 15 έως 80 ετών. Θα θέλαμε να σας τονίσουμε ότι δεν υπάρχουν σωστές ή λάθος απαντήσεις και ότι οι απαντήσεις σας θα παραμείνουν απολύτως εμπιστευτικές και θα χρησιμοποιηθούν αποκλειστικά και μόνο για στατιστικούς λόγους. Η συνέντευξη θα διαρκέσει περίπου 8 λεπτά και οι απαντήσεις σας θα είναι πολύτιμες για εμάς. Θα μπορούσα να σας απασχολήσω για λίγο;

Ερευνητή επανέλαβε την εισαγωγή σε περίπτωση που μιλήσεις με κάποιο άλλο μέλος του νοικοκυριό. Στην περίπτωση που δεν είναι διαθέσιμο αυτή τη στιγμή το άτομο με τα πιο πρόσφατα γενέθλια, ζήτησε να μιλήσεις με το άτομο εκείνο που είναι διαθέσιμο και έχει τα αμέσως επόμενα πιο πρόσφατα γενέθλια.

Ακολουθούν κάποιες εισαγωγικές ερωτήσεις

E1. Φύλο	**E2. Ηλικία**
□ Άνδρας □Γυναίκα	..... └┴┘ **έτη**

E3. Ποιο είναι το υψηλότερο επίπεδο εκπαίδευσης που έχετε συμπληρώσει;	**E4. Πόσα παιδιά κάτω των 18 ετών μένουν στο νοικοκυριό σας;**
□ Δεν πήγε καθόλου σχολείο ή μερικές τάξεις του Δημοτικού □ Απολυτήριο Δημοτικού □ Απολυτήριο τριτάξιου Γυμνασίου μέσης εκπαίδευσης □ Απολυτήριο Λυκείου μέσης εκπαίδευσης □ Ινστιτούτο Επαγγελματικής Κατάρτισης (ΙΕΚ) □ Πτυχίο Ανώτερου Τεχνολογικού Εκπαιδευτικού Ιδρύματος (ΤΕΙ) □ Φοίτηση σε ΑΕΙ (τουλάχιστον 1 χρόνο) αλλά δεν πήρε πτυχίο □ Πτυχίο Ανώτατων σχολών (ΑΕΙ) □ Μεταπτυχιακός τίτλος □ Διδακτορικό	└┴┘ **άτομα**

E5. Που κατοικείτε;	**E6a. Ποιο από τα παρακάτω περιγράφει καλύτερα την κύρια απασχόληση σας τον τελευταίο μήνα:**
□ Πόλη □ Κωμόπολη □ Χωριό □ Εξοχή (να συσχετιστεί με την ερώτηση που γίνεται για internal validity του sample, «πόσους κατοίκους έχει ο τόπος που κατοικείτε;»)	□ Εργαζόμενος/ Ελ. Επαγγελματίας □ Σπουδαστής/ Μαθητής/ Φοιτητής □ Άνεργος □ Μόνιμα ασθενής ή ανάπηρος □ Συνταξιούχος □ Στρατιώτης που κάνει τη θητεία του □ Οικιακά, άδεια εγκυμοσύνης ή μητρότητας, φροντίδα παιδιών ή άλλων ατόμων στο σπίτι □ Άλλο (αυθόρμητα) □ Δεν απαντώ (αυθόρμητα)

E6b. Ποια είναι η δουλειά σας;

□ Προϊστάμενος, Διευθυντής με υφισταμένους
□ Επαγγελματίες υγείας όπως θεράποντες, με ανώτερη μόρφωση, με άδεια επαγγέλματος όπως γιατροί, ψυχολόγοι, νοσοκόμοι, φυσιοθεραπευτές
□ Άλλοι επαγγελματίες/ επιστήμονες/ υπάλληλοι όπως π.χ. δικηγόροι, πωλητές, σύμβουλοι, γραμματείς, καλλιτέχνες, ερευνητές, εκπαιδευτικοί, νηπιαγωγοί,
□ Βοηθοί στο χώρο της υγείας χωρίς ευθύνη για την θεραπεία/ αγωγή, με μικρή ή καθόλου πιστοποιημένη εκπαίδευση, χωρίς άδεια εξάσκησης επαγγέλματος
□ Εξειδικευμένοι εργάτες (με πιστοποιημένη πλήρη εκπαίδευση τουλάχιστον ενός έτους) όπως εργάτες χειρονακτικής εργασίας, εκπαιδευμένοι υδραυλικοί, ξυλουργοί, μηχανικοί σε συνεργία, μάγειρες
□ Ανειδίκευτοι εργάτες με μικρή ή καθόλου πιστοποιημένη εκπαίδευση όπως εργάτες χειρονακτικής εργασίας, καθαριστές, οδηγοί, βοηθοί νηπιαγωγού

E7 Θα σας διαβάσω τώρα μια λίστα με διάφορες πηγές πληροφόρησης σχετικές με θέματα Υγείας (ασθένειες, φυσική κατάσταση, διατροφή κλπ). Θα ήθελα να μου πόσο σημαντικές είναι για εσάς. Παρακαλώ βαθμολογήστε τις σε μια κλίμακα από το 1 έως το 5 όπου το 1 " δεν είναι σημαντικό " και το 5 είναι " σημαντικό". *Διαβάστε*

Το Διαδίκτυο / Ίντερνετ	**Εφημερίδες, περιοδικά**
□ 1 □ 2 □ 3 □ 4 □ 5	□ 1 □ 2 □ 3 □ 4 □ 5
Τηλεόραση / ραδιόφωνο	**Φίλοι, οικογένεια, συνάδελφοι**
□ 1 □ 2 □ 3 □ 4 □ 5	□ 1 □ 2 □ 3 □ 4 □ 5
Βιβλία, ιατρικές εγκυκλοπαίδειες, ενημερωτικά φυλλάδια	**Φαρμακεία**
□ 1 □ 2 □ 3 □ 4 □ 5	□ 1 □ 2 □ 3 □ 4 □ 5
Προσωπική επαφή με επαγγελματίες υγείας (γιατρούς, νοσοκόμες, μαίες, οδοντίατρους κλπ)	**Σεμινάρια, ομιλίες, μαθήματα**
□ 1 □ 2 □ 3 □ 4 □ 5	□ 1 □ 2 □ 3 □ 4 □ 5

E8. Πόσο συχνά χρησιμοποιείτε το Διαδίκτυο;

□ κάθε μέρα □ κάθε εβδομάδα □ κάθε μήνα □ λιγότερο από μια φορά το μήνα
□ Δεν έχω χρησιμοποιήσει ποτέ το Διαδίκτυο (-> E17)
□ Δεν το έχω χρησιμοποιήσει, αλλά έχω ζητήσει από άλλους να το χρησιμοποιήσουν για μένα (-> E8B)

E8B. Ψάχνατε πληροφορίες για θέματα Υγείας;

□ Ναι (-> E17)
□ Όχι (-> E17)

E9. Από πού χρησιμοποιήσατε το Διαδίκτυο τον περασμένο μήνα; Σημειώστε όσα αντιστοιχούν

□ από τη δουλειά / σχολείο / εκπαιδευτικό ίδρυμα
□ από το σπίτι
□ από κάποιο φίλο, γνωστό ή συγγενή
□ από Internet café/δημόσια βιβλιοθήκη/δημόσιο χώρο πρόσβασης στο Διαδίκτυο
□ από νοσοκομείο, κλινική, φαρμακείο ή άλλο κέντρο υγειονομικής περίθαλψης
□ από αλλού
□ δεν χρησιμοποίησα το Διαδίκτυο τον περασμένο μήνα

E10. Πόσο συχνά χρησιμοποιείτε το Διαδίκτυο για να πάρετε πληροφορίες για θέματα Υγείας; Διαβάστε

□ κάθε μέρα
□ κάθε εβδομάδα
□ κάθε μήνα
□ κάθε έξι μήνες
□ κάθε χρόνο
□ λιγότερο από μια φορά το χρόνο
□ ποτέ (-> E17)

E11. Θα σας διαβάσω τώρα κάποιες περιπτώσεις στις οποίες μπορείτε να χρησιμοποιήσετε το Διαδίκτυο για να πάρετε πληροφορίες για θέματα Υγείας. Θα ήθελα να μου πείτε πόσο συχνά χρησιμοποιείτε το Διαδίκτυο στις περιπτώσεις αυτές..
Πόσο συχνά χρησιμοποιείτε το Διαδίκτυο:

□	για να έρθετε σε επαφή με επαγγελματίες Υγείας που δεν έχετε συναντήσει ποτέ;	□ κάθε μέρα □ κάθε εβδομάδα □ κάθε μήνα □ κάθε έξι μήνες □ κάθε χρόνο □ λιγότερο από μια φορά το χρόνο ποτέ
□	για να συμμετέχετε σε ομάδες συζήτησης, αλληλοβοήθειας ή υποστήριξης που εστιάζουν σε θέματα Υγείας;	□ κάθε μέρα □ κάθε εβδομάδα □ κάθε μήνα □ κάθε έξι μήνες □ κάθε χρόνο □ λιγότερο από μια φορά το χρόνο ποτέ
□	για να παραγγείλετε φάρμακα ή άλλα προϊόντα που σχετίζονται με την υγεία σας μέσω διαδικτύου;	□ κάθε μέρα □ κάθε εβδομάδα □ κάθε μήνα □ κάθε έξι μήνες □ κάθε χρόνο □ λιγότερο από μια φορά το χρόνο ποτέ
□	για να ενημερωθείτε σχετικά με θέματα Υγείας;	□ κάθε μέρα □ κάθε εβδομάδα □ κάθε μήνα □ κάθε έξι μήνες □ κάθε χρόνο □ λιγότερο από μια φορά το χρόνο ποτέ

E11B. Θα σας διαβάσω τώρα κάποιες περιπτώσεις στις οποίες μπορείτε να χρησιμοποιήσετε το Διαδίκτυο για να πάρετε πληροφορίες για θέματα Υγείας. Θα ήθελα να μου πείτε πόσο συχνά χρησιμοποιείτε το Διαδίκτυο στις περιπτώσεις αυτές..
Χρησιμοποιείτε το Διαδίκτυο πάντα, συχνά, μερικές φορές, σπάνια ή ποτέ:

□	για να βρείτε πληροφορίες που θα σας βοηθήσουν να αποφασίσετε αν θα συμβουλευτείτε έναν επαγγελματία υγείας	□ πάντα □ συχνά □ μερικές φορές □ σπάνια □ ποτέ
□	για να βρείτε πληροφορίες πριν από ένα ιατρικό ραντεβού	□ πάντα □ συχνά □ μερικές φορές □ σπάνια □ ποτέ
□	για να βρείτε πληροφορίες μετά από ένα ιατρικό ραντεβού (π.χ για δεύτερη γνώμη)	□ πάντα □ συχνά □ μερικές φορές □ σπάνια □ ποτέ

E12. Προσεγγίσατε τον γιατρό σας, κάποιον επαγγελματία υγείας, ή οργανισμό υγείας μέσω Διαδικτύου (πχ ιστοσελίδα ή ηλεκτρονικό ταχυδρομείο), πχ για να διαβάσετε την ιστοσελίδα τους, να ανανεώσετε μια συνταγή φαρμάκων, να προγραμματίσετε ένα ραντεβού, να κάνετε ερωτήσεις σχετικές με την υγεία, να διαβάσετε το φάκελο υγείας σας;

Ναι (-> E13)
Όχι (-> E14)

E13. Για ποιο λόγω προσεγγίσατε τον γιατρό σας, κάποιον επαγγελματία υγείας, ή οργανισμό υγείας μέσω Διαδικτύου (πχ ιστοσελίδα ή ηλεκτρονικό ταχυδρομείο); Διαβάστε και σημειώστε όσες περιπτώσεις ισχύουν.

□ για να ζητήσετε ή να ανανεώσετε συνταγή φαρμάκων
□ για να προγραμματίσετε ένα ραντεβού
□ για να κάνετε ερωτήσεις σχετικές με την υγεία σας
□ για να διαβάσετε το φάκελο υγείας σας
□ για να διαβάσετε την ιστοσελίδα τους
□ άλλο
Μη διαβάσετε
□ δεν ξέρω
□ δεν απαντώ

E14. Υπάρχουν διάφοροι λόγοι που δεν προσεγγίσατε τον γιατρό σας, κάποιον επαγγελματία υγείας, ή οργανισμό υγείας μέσω Διαδικτύου. Ποιες περιπτώσεις ισχύουν για εσάς;

□ Ανησυχώ για τα προσωπικά μου δεδομένα
□ Προτιμώ την προσωπική επαφή
□ Ο γιατρός μου ή ο επαγγελματίας υγείας δεν είχε αυτή την υπηρεσία
□ Δε χρειάστηκε να επικοινωνήσω μαζί τους
□ Άλλο
Μη διαβάσετε
□ δεν ξέρω/□ δεν απαντώ

E 15 Κατά την αξιολόγηση μιας ιστοσελίδας σχετικής με θέματα υγείας; Πόσο σημαντικοί είναι για εσάς οι παρακάτω παράγοντες
(βαθμολογήστε της σε μια κλίμακα από το 1 έως το 5 όπου το 1 δεν είναι σημαντικό και το 5 είναι σημαντικό)

□	Προστασία των προσωπικών δεδομένων	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται
□	Πληροφορίες στη γλώσσα μου	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται
□	Ενημερωμένο περιεχόμενο	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται
□	Δυνατότητα αλληλεπίδρασης (πχ να κάνετε ερωτήσεις, να λάβετε απαντήσεις, να συμμετέχετε σε ομάδες συζήτησης, αλληλοβοήθειας κλπ)	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται

□	Συμμετοχή επαγγελματιών υγείας	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται
□	Σαφής ένδειξη για το ποιος είναι υπεύθυνος ή ποιος είναι ο χορηγός της ιστοσελίδας	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται

Ε16. Οι πληροφορίες που έχετε αποκτήσει μέσω Διαδικτύου έχουν οδηγήσει σε κάποιο από τα παρακάτω; *Διαβάστε*	
□ Ανησυχία	□ Ναι □ Όχι □ Δεν γνωρίζω
□ Ανακούφιση	□ Ναι □ Όχι □ Δεν γνωρίζω
□ Επιθυμία για αλλαγή δίαιτας ή τρόπου ζωής	□ Ναι □ Όχι □ Δεν γνωρίζω
□ Ερωτήσεις ή προτάσεις εναλλακτικών λύσεων σε επαγγελματίες υγείας σχετικά με μια διάγνωση ή θεραπεία	□ Ναι □ Όχι □ Δεν γνωρίζω
□ Αλλαγή στη χρήση φαρμάκων χωρίς να έχετε συμβουλευτεί ειδικό	□ Ναι □ Όχι □ Δεν γνωρίζω
□ Να κλείσετε, να αλλάξετε ή να ακυρώσετε ραντεβού με επαγγελματίες υγείας	□ Ναι □ Όχι □ Δεν γνωρίζω

Εισαγωγή: Θα θέλαμε τώρα να σας κάνουμε κάποιες ερωτήσεις σχετικά με το τι πιστεύετε ότι θα κάνετε στο μέλλον

Ε17. Δεδομένου ότι σας δίνεται η ευκαιρία, πείτε μας πόσο πιθανό είναι να κάνετε τα παρακάτω μέσα στον επόμενο χρόνο (βαθμολογήστε σε μια κλίμακα από το 1 έως το 5 όπου το 1 απίθανο και το 5 πολύ πιθανό)	
□ Να αναζητήσετε πληροφορίες για θέματα Υγείας ή για μια συγκεκριμένη ασθένεια στο Διαδίκτυο	□ 1 □ 2 □ 3 □ 4 □ 5
□ Να συμμετάσχετε σε ομάδες συζήτησης, αλληλοβοήθειας ή υποστήριξης στο Διαδίκτυο	□ 1 □ 2 □ 3 □ 4 □ 5
□ Να παραγγείλετε φάρμακα ή άλλα προϊόντα που σχετίζονται με την υγεία μέσω Διαδικτύου	□ 1 □ 2 □ 3 □ 4 □ 5
□ Να συμβουλευτείτε επαγγελματίες Υγείας στο Διαδίκτυο	□ 1 □ 2 □ 3 □ 4 □ 5
□ Να κλείσετε, να αλλάξετε ή να ακυρώσετε ένα ραντεβού με επαγγελματίες υγείας μέσω Διαδικτύου	□ 1 □ 2 □ 3 □ 4 □ 5

Ε18. Πόσο σημαντικοί είναι για σας οι παρακάτω παράγοντες στην επιλογή γιατρού; (βαθμολογήστε σε μια κλίμακα από το 1 έως το 5 όπου το 1 δεν είναι σημαντικό και το 5 είναι σημαντικό)	
□ Η δυνατότητα ηλεκτρονικής συνταγογράφησης φαρμάκων	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται
□ Το κόστος υπηρεσιών	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται
□ Η δυνατότητα προγραμματισμού ή αλλαγής των ραντεβού μέσω Διαδικτύου	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται
□ Πληροφορίες για τον γιατρό πχ λίστα αναμονής, επιδόσεις του γιατρού σε δημόσια ή άλλη αξιολόγηση	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται
□ Η ύπαρξη ιστοσελίδας του ιατρείου	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται
□ Συστάσεις από άλλους	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται
□ Η δυνατότητα επικοινωνίας με ηλεκτρονικό ταχυδρομείο	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται
□ Η δυνατότητα να λαμβάνετε υπενθυμίσεις με γραπτό μήνυμα στο κινητό σας	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται
□ Η δυνατότητα πρόσβασης μέσω Διαδικτύου στο φάκελο υγείας σας.	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται
□ Η εύκολη πρόσβαση στο ιατρείο / βολικές ώρες εξυπηρέτησης	□ 1 □ 2 □ 3 □ 4 □ 5 □ 6: Δε γνωρίζω/δεν εφαρμόζεται

Στο τέλος θα θέλαμε να σας κάνουμε κάποιες γενικές ερωτήσεις.

Ε19. Πόσες φορές επισκεφτείκατε γιατρό τον τελευταίο χρόνο (12 μήνες);
(Συμπεριλάβετε την εισαγωγή σε νοσοκομείο ή τις επισκέψεις στα εξωτερικά ιατρεία. Μην συμπεριλάβετε τις επισκέψεις στον οδοντίατρο)
└┴┘ φορές □ δε γνωρίζω □ δε θέλω να απαντήσω

Ε20. Μήπως εσείς ή κάποιος δικός σας έχει κάποια χρόνια πάθηση ή είναι άτομο με ειδικές ανάγκες;

□ ναι, έχω εγώ □ ναι, κάποιος δικός μου □ όχι □ δε γνωρίζω □ δε θέλω να απαντήσω

Ε19. Πώς θα εκτιμούσατε την παρούσα κατάσταση της υγείας σας;

□ πολύ καλή □ καλή □ μέτρια □ κακή □ πολύ κακή □ δε γνωρίζω □ δε θέλω να απαντήσω

9.1.1 National Greek Questions

Ε20. Θα σας διαβάσω τώρα δύο προτάσεις και θα ήθελα να μου πείτε με ποια από τις δύο συμφωνείτε περισσότερο.
Α. Βλέπω θετικά την δυνατότητα ιατρικής επίσκεψης μέσω υπολογιστή ή βιντεο-τηλεφώνου, χωρίς να χρειάζεται να πάω σε νοσοκομείο ή ιατρείο.
Β. Δεν νοιώθω άνετα στην ιδέα της ιατρικής επίσκεψης μέσω υπολογιστή ή βίντεο- τηλεφώνου

□ **Α** □ **Β** □ ΔΕΝ ΓΝΩΡΙΖΩ (μην διαβάσετε την επιλογή αυτή) Αν η απάντηση είναι ΝΑΙ πήγαινε στην Ε20.1	**Ε20.1 [Αν απάντησε Α] Θα ήσασταν διατεθειμένος/μένη να πληρώσετε 10 ευρώ για ιατρική επίσκεψη μέσω υπολογιστή ή βίντεο- τηλεφώνου;** **[ΜΗΝ ΤΟ ΔΙΑΒΑΣΕΤΕ]** □ Ναι □ Όχι □ Ναι μέσω ασφαλιστικού φορέα □ Ναι μέσω ιδιωτικής ασφάλειας

E21. «Θα σας διαβάσω τώρα δύο προτάσεις και θα ήθελα να μου πείτε με ποια από τις δύο συμφωνείτε περισσότερο.

Α: "Προκειμένου να λάβω γρήγορη και έγκυρη διάγνωση, βλέπω θετικά το να έχει πρόσβαση μέσω υπολογιστή στο φάκελο νοσηλείας μου, ειδικός γιατρός από άλλο μέρος της Ελλάδας ή του εξωτερικού, π.χ. για να ερμηνεύσει τα αποτελέσματα μιας μαγνητικής τομογραφίας ή να δώσει μια δεύτερη γνώμη"

Β: "Ακόμα και αν ήταν να λάβω γρήγορη και έγκυρη διάγνωση, δεν νοιώθω άνετα να έχει πρόσβαση μέσω υπολογιστή στο φάκελου νοσηλείας μου, ειδικός γιατρός από άλλο μέρος της Ελλάδας ή του εξωτερικού "

(Α) ΜΕ ΤΗΝ ΑΔΕΙΑ ΜΟΥ [ΜΗΝ ΤΟ ΔΙΑΒΑΣΕΤΕ]

□ Α
□ Β
□ ΔΕΝ ΓΝΩΡΙΖΩ (μην διαβάσετε την επιλογή αυτή)

E22. Αν είχατε την δυνατότητα να χρησιμοποιήσετε το Διαδίκτυο για να δείτε το φάκελο υγείας σας (π.χ. ιστορικό, αποτελέσματα εργαστηριακών εξετάσεων, ακτινογραφίες, καρδιογραφήματα κτλ.) θα το κάνατε;

□ Ναι
□ ΟΧΙ
□ ΔΕΝ ΓΝΩΡΙΖΩ (μην διαβάσετε την επιλογή αυτή)
Αν η απάντηση είναι ΝΑΙ πήγαινε στην <u>E20.1</u>

E22.1 Είστε διατεθειμένος/μένη να πληρώνετε 30 ευρώ το χρόνο για αυτή την δυνατότητα

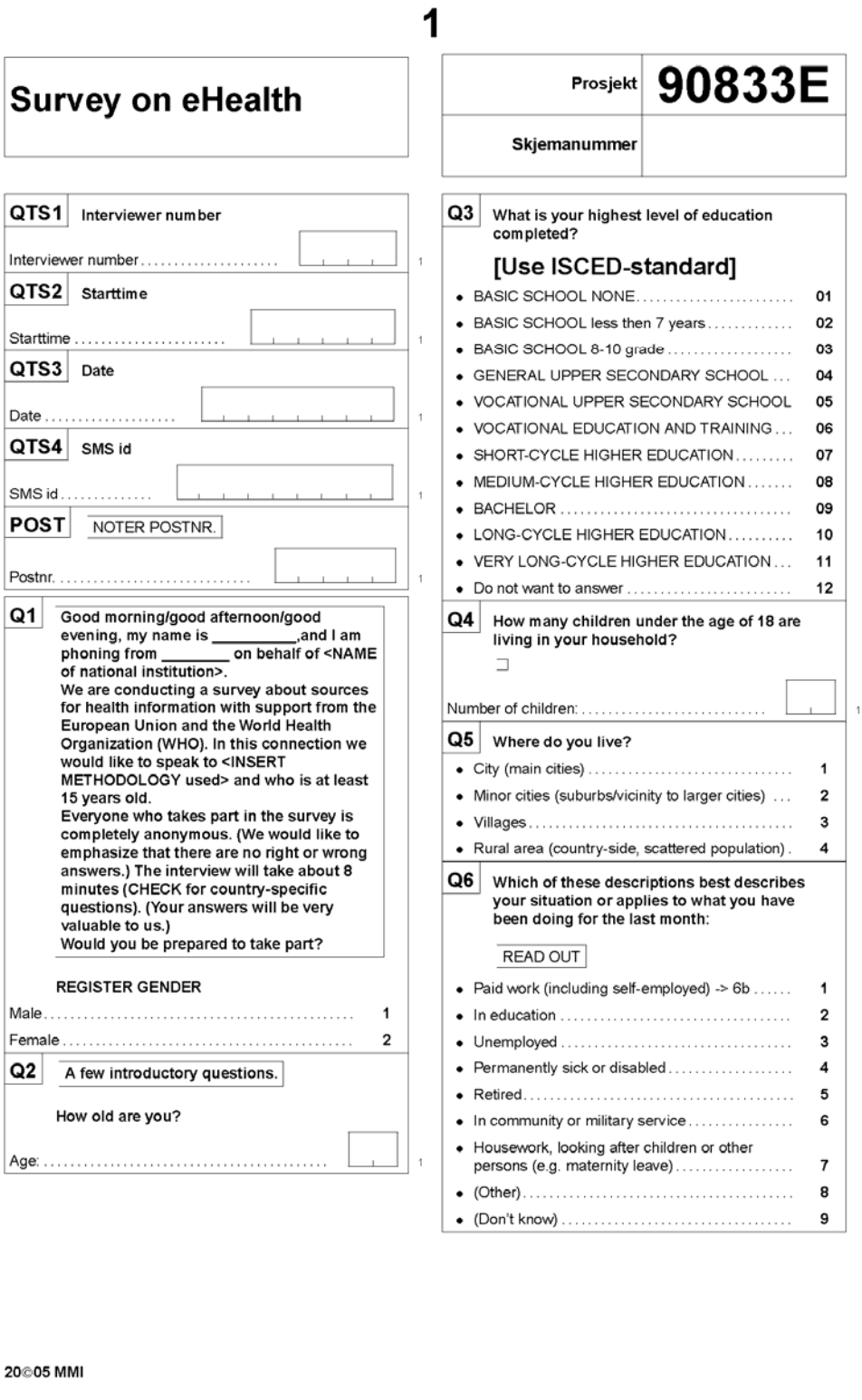
□ ΝΑΙ
□ ΟΧΙ
□ Ναι μέσω ασφαλιστικού φορέα [ΜΗΝ ΤΟ ΔΙΑΒΑΣΕΤΕ]
□ Ναι μέσω ιδιωτικής ασφάλειας [ΜΗΝ ΤΟ ΔΙΑΒΑΣΕΤΕ]

E23. .Όταν αρρωστήσετε εσείς ή κάποιο μέλος της οικογένειας σας, τι κάνετε συνήθως; [RANDOMIZE]

☐ συμβουλεύεστε ιατρική εγκυκλοπαίδεια, ή το Διαδίκτυο
☐ τηλεφωνείτε στον γιατρό
☐ πηγαίνετε στον γιατρό
☐ καλείτε ασθενοφόρο
☐ πηγαίνετε στα επείγοντα του εφημερεύοντος νοσοκομείου
☐ πηγαίνετε στο κέντρο υγείας ή στο περιφερειακό ιατρείο της περιοχής σας
☐ δεν γνωρίζω/ δεν απαντώ

Σας ευχαριστούμε πολύ για τη βοήθεια σας

9.2 Master Questionnaire



1

Survey on eHealth

Prosjekt **90833E**

Skjemanummer

QTS1 Interviewer number

Interviewer number 1

QTS2 Starttime

Starttime 1

QTS3 Date

Date 1

QTS4 SMS id

SMS id 1

POST NOTER POSTNR.

Postnr. 1

Q1 Good morning/good afternoon/good evening, my name is _____,and I am phoning from _____ on behalf of <NAME of national institution>.
We are conducting a survey about sources for health information with support from the European Union and the World Health Organization (WHO). In this connection we would like to speak to <INSERT METHODOLOGY used> and who is at least 15 years old.
Everyone who takes part in the survey is completely anonymous. (We would like to emphasize that there are no right or wrong answers.) The interview will take about 8 minutes (CHECK for country-specific questions). (Your answers will be very valuable to us.)
Would you be prepared to take part?

REGISTER GENDER

Male 1
Female 2

Q2 A few introductory questions.

How old are you?

Age: 1

Q3 What is your highest level of education completed?

[Use ISCED-standard]

- BASIC SCHOOL NONE 01
- BASIC SCHOOL less then 7 years 02
- BASIC SCHOOL 8-10 grade 03
- GENERAL UPPER SECONDARY SCHOOL ... 04
- VOCATIONAL UPPER SECONDARY SCHOOL 05
- VOCATIONAL EDUCATION AND TRAINING ... 06
- SHORT-CYCLE HIGHER EDUCATION 07
- MEDIUM-CYCLE HIGHER EDUCATION 08
- BACHELOR 09
- LONG-CYCLE HIGHER EDUCATION 10
- VERY LONG-CYCLE HIGHER EDUCATION ... 11
- Do not want to answer 12

Q4 How many children under the age of 18 are living in your household?

❑

Number of children: 1

Q5 Where do you live?

- City (main cities) 1
- Minor cities (suburbs/vicinity to larger cities) ... 2
- Villages 3
- Rural area (country-side, scattered population) . 4

Q6 Which of these descriptions best describes your situation or applies to what you have been doing for the last month:

READ OUT

- Paid work (including self-employed) -> 6b 1
- In education 2
- Unemployed 3
- Permanently sick or disabled 4
- Retired 5
- In community or military service 6
- Housework, looking after children or other persons (e.g. maternity leave) 7
- (Other) 8
- (Don't know) 9

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2

Filter: Q6=1

Q6B What is your job?

DON'T READ OUT
(TWO OPTIONS POSSIBLE FOR HEALTH PERSONNEL)

*

White collar group

- Manager, head of other people 1
- Health personnel, e.g. has treatment responsibility, higher education, licence or authorization such as medical doctor, psychologist, nurse, physiotherapist. 2
- Other, e.g. lawyer, consultant, secretary, artist, researcher, educationalist, kindergarten teacher 3

Blue collar group

- Health care assistants, e.g. with no formal treatment responsibility, short or no formal training, no licence or authorization..... 4
- Skilled workers (formal full-time schooling for at least a year or equivalent), e.g. manual/routine work, trained plumber, carpenter, mechanic, cook. 5
- Unskilled or semi skilled workers, with no or short time of formal training, e.g. manual/routine worker, cleaning personnel, drivers, kindergarten assistant 6

Q7 **I will now read a list of various sources of information about health or illness, and would like to know how important these are to you. Please would you answer on a scale from 1 to 5, where 1 is "not important" and 5 is "important".**

READ OUT

	1 Not important	2	3	4	5 Important	Do not know	
• Internet	1	2	3	4	5	6	1
• TV/radio	1	2	3	4	5	6	2
• Books, medical encyclopaedias and leaflets	1	2	3	4	5	6	3
• Courses and lectures	1	2	3	4	5	6	4
• Newspapers, magazines	1	2	3	4	5	6	5
• Family, friends and colleagues	1	2	3	4	5	6	6
• Pharmacies	1	2	3	4	5	6	7
• Direct face-to-face contact with health professionals	1	2	3	4	5	6	8

3

Q8 How often do you use the Internet?

READ OUT

- Every day 1
- Every week 2
- Every month 3
- Less than once a month 4
- I have never used the Internet (⇒ **Q17**) 5
- I have never used it, but I have asked others to use it for me(⇒ **Q8B**) 6

Filter: Q8=6

Q8B Were you looking for information about health or illness?

*

- Yes(⇒ **Q17**) 1
- No(⇒ **Q17**) 2

Q9 Where did you use the Internet during the past month?

READ OUT
CHECK AS MANY AS APPLY

- At work/school/ educational institution 1,
- At home 2,
- At a friend, acquaintance or family member's house 3,
- Internet café/public library/ public access points 4,
- In a hospital, clinic, pharmacy or other health-care centre 5,
- Elsewhere 6,
- I have not used it last month ..... 7.

Q10 How often do you use the Internet to get information about health or illness?

READ OUT

- Every day 1
- Every week 2
- Every month. 3
- Every six months 4
- Every year 5
- Less than once a year 6
- Never(⇒ **Q17**) 7

4

Q11 **I will now read out some purposes for which the Internet can be used to provide information related to health or illness, and would like to know how often you use the Internet for these purposes.**

How often do you use the Internet to:

REPEAT SCALE WHEN NECESSARY

	Every day	Every week	Every month	Every six months	Every year	Less than once a year	Never	
• interact with health professionals you have not met face-to-face	1	2	3	4	5	6	7	1
• participate in forums or self help groups (focusing on health or illness)	1	2	3	4	5	6	7	2
• order medicines or other products related to health or illness management online	1	2	3	4	5	6	7	3
• read about health and illness	1	2	3	4	5	6	7	4

Q11B **I will now read out some purposes for which the Internet can be used to provide information related to health or illness, and would like to know how often you use the Internet for these purposes.**

Do you, always, often, sometimes, rarely or never, use the Internet to....

REPEAT SCALE WHEN NECESSARY

	Always	Often	Sometimes	Rarely	Never	
• find health information that can help you decide whether to consult a healthprofessional	1	2	3	4	5	1
• find health information prior to anappointment	1	2	3	4	5	2
• find information after an appointment with health professionals (e.g. for second opinion)	1	2	3	4	5	3

Q12 **Have you approached your family doctor, specialist, or other health professional(s) over the Internet (web or e-mail), e.g. read their website, request or renew prescription, schedule an appointment, ask particular health questions or read your health record?**

- Yes(⇒ **Q13**) 1
- No(⇒ **Q14**) 2

Filter: Q12=1

Q13 **In which connection and for what purposes have youapproached your family doctor, specialist, or other health professional(s) via the Internet?**

READ OUT.
CHECK AS MANY AS APPLY.

*

- Request or renew prescription via e-mail or web 1,
- Schedule an appointment 2,
- Ask particular health questions 3,
- Access to read your patient record 4,
- Read their web site 5,
- Other 6,
- DO NOT READ OUT
  Do not know 7,
- DO NOT READ OUT
  Do not want to answer 8.

5

Filter: Q12=2

Q14 There are different reasons for not approaching your family doctor, specialist or other health professional(s) via the Internet. Which reasons apply for you?

CHECK AS MANY AS APPLY

• I worry about confidentiality	1,
• I prefer face-to-face communication	2,
• My family doctor or specialist do not offer such services	3,
• I have not needed to contact them	4,
• Other	5,
• DO NOT READ OUT Do not know	6,
• DO NOT READ OUT Do not want to answer	7.

Q15 When evaluating an Internet health site, how important are the following factors?

Please would you answer on a scale from 1 not important to 5 important.

	1 Not important	2	3	4	5 Important	Do not know / not applicable	
• Secure handling of personal information	1	2	3	4	5	6	1
• Information in my own language	1	2	3	4	5	6	2
• Updated information	1	2	3	4	5	6	3
• Interactivity, e.g. Question-and-answer service, discussion groups, chat	1	2	3	4	5	6	4
• Health professionals are involved	1	2	3	4	5	6	5
• Clearly stated who is responsible for or sponsors the site	1	2	3	4	5	6	6

Q16 Has information on health or illness which you have obtained from the Internet led to any of the following?

READ OUT

	Yes	No	Do not know	
• Feelings of anxiety	1	2	3	1
• Feelings of reassurance or relief	1	2	3	2
• willingness to change diet or other lifestyle habits	1	2	3	3
• suggestions or queries on diagnosis ortreatment to your family doctor, specialist or other health professionals	1	2	3	4
• Changing of use of medicine without consulting your family doctor, specialist or other health professionals	1	2	3	5
• Making, canceling or changing an appointment with your family doctor, specialist or other health professionals	1	2	3	6

6

Q17 We would now like to ask you a few questions about what you believe you will do in the future.

Given that you were provided the possibility, state how likely it is that you will do the following during the next year?

Please would you answer on a scale from 1 unlikely to 5 very likely.

	1 Unlikely	2	3	4	5 Very likely	Do not know / not applicable	
• Look for information about health or a particular illness on the Internet	1	2	3	4	5	6	1
• Participate in forums or self-help groups focusing on health or illness online	1	2	3	4	5	6	2
• Order medicines or other health products online	1	2	3	4	5	6	3
• Have consultations with health professionals online	1	2	3	4	5	6	4
• Make, cancel or change an appointment with your family doctor, specialist or other health professionals online	1	2	3	4	5	6	5

Q18 If you were to find a new doctor, state the importance of the following factors for your decision.

Please would you answer on a scale from 1 not important to 5 important.

	1 Not important	2	3	4	5 Important	Do not know / not applicable	
• The possibility to request or renew prescriptions via e-mail or web	1	2	3	4	5	6	1
• The cost of services	1	2	3	4	5	6	2
• The possibility to schedule or change appointments online	1	2	3	4	5	6	3
• Information on the doctor's practice, e.g waiting lists or scores onpublic evaluation	1	2	3	4	5	6	4
• That the office has its own website	1	2	3	4	5	6	5
• Recommendation by others	1	2	3	4	5	6	6
• The possibility to communicate by e-mail	1	2	3	4	5	6	7
• The possibility to get reminders by SMS textmessage	1	2	3	4	5	6	8
• Online access to read your electronic patient record.	1	2	3	4	5	6	9
• Accessibility, such as nearby office and convenient opening hours	1	2	3	4	5	6	10

7

Q19 To end off, a few background questions.

How many times did you visit a doctor during the last 12 months? (Include hospitalisation or visits to the outpatient department; do NOT include visits to the dentist).

Do not know : type 98
Do not want to answer :type 99

Number of times: ..... ___ 1

Q20 **Are you, or someone close to you, currently experiencing long-term illness or disability?**

CHECK AS MANY AS APPLY

- Yes, I am 1,
- Yes, someone close to me is 2,
- No 3,
- DO NOT READ OUT
  Do not know 4,
- DO NOT READ OUT
  Do not want to answer ..... 5.

Q21 **How would you assess your present state of health?**

READ OUT

- Very good 1
- Good 2
- Fair 3
- Bad 4
- Very bad 5
- DO NOT READ OUT
  Do not know 6
- DO NOT READ OUT
  Do not want to answer 7

Thank you very much for your help!

9.2.1 National Greek Questions

<table>
<tr><td colspan="2">Q20. I will now read two statements for you and I will ask you to tell me, which of the statements you agree most with:
A: “I do not feel comfortable to have a health visit via a computer or a video-phone”
B: “I am positive to the idea of having a health visit via a computer or a video phone”
Which statement do you agree most with?</td></tr>
<tr><td>□ I mostly agree with statement A</td><td>Q20.1 Would you agree to pay 10 € for this service?
□ Yes
□ No
□ Yes through insurance</td></tr>
<tr><td colspan="2">□ I mostly agree with statement B
□ I do not know (do not read this option)</td></tr>
<tr><td colspan="2">Q21. I will now read two statements for you and ask you to tell me, which you agree most with:
A: “In order to get a quick and valid diagnosis, I am positive about giving internet access to my medical record to a doctor in another location or abroad, eg to give consultation about an MRI.”
B: “Even if I were to receive a quick and accurate diagnosis, I do not feel comfortable providing access to my medical record to a doctor in another location or abroad, eg to give consultation about an MRI. ”
Which statement do you agree most with?</td></tr>
<tr><td colspan="2">□ I mostly agree with statement A
□ I mostly agree with statement B
□ I do not know (do not read this option)</td></tr>
<tr><td colspan="2">Q 22. Assuming that you had the possibility to use the internet to access your electronic health record online, would you do it?</td></tr>
<tr><td>□ Yes</td><td>Q20.1 Would you agree to pay 30 € per year for this service?
□ Yes
□ No
□ Yes, through private insurance (do not read)
□ Yes, through public insurance (do not read)</td></tr>
<tr><td colspan="2">□ No □ I do not know (do not read this option)</td></tr>
<tr><td colspan="2">Q23. What do you do when yourself or a person in your immediate family are sick?</td></tr>
<tr><td colspan="2">□ consult a medical encyclopaedia or the Internet
□ call the doctor
□ visit the doctor
□ call an ambulance
□ go the emergency department of the hospital
□ go the primary care centre or remote office
□ don’t know
(randomise)</td></tr>
</table>