

## A Pill for Every Illness – Revisited: Patient information in Germany 2011

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**Abstract:** Medical issues have always been a major source of everyday public and interpersonal discourse. As in many European countries, the German population is growing older. Thus the aging process, the occurrence of diseases, their treatment and/or prevention as well as the cost of medical care will definitely remain subjects of debate and concern. The healthcare industry (involving governments, health insurance companies, big pharmaceutical groups as well as doctors and hospitals), the population (the potential patients) and the media are major stakeholders in this discussion. However, they all pursue diverging interests. Consumer health information (CHI) abounds in printed formats that can be classified into informative, persuasive and advertising genres. Moreover, television, Internet and mobile devices have allowed for yet another range of mixed genres (e.g. blogging, online support groups). This abundance of material has spurred the textual competitiveness of the various media. In the future, up-to-the-minute, real-time communication between patient(s), doctor and specialist will be prevailing practice. So we are witnessing a transformation in the way people make use of traditional and new sources of information about all sorts of health-related issues. This article briefly examines some developments in the German healthcare sector and considers their effects on CHI communication with a specific focus on comprehensibility, persuasiveness and author-reader relationship. Finally, the article will discuss the impact of healthcare-focused promotional texts.

**Key words:** CHI, health magazines, telemedicine, health portals, comprehensibility.

### *A pill for every illness: revisión de la información al paciente en Alemania*

**Resumen:** Desde siempre, las cuestiones médicas acaparan el discurso público e interpersonal. La población alemana, como la de muchos países europeos, está envejeciendo. Por ello, no cabe duda de que el envejecimiento, las enfermedades, su tratamiento o prevención y el costo de la atención médica seguirán siendo objeto de debate y preocupación. Las principales partes interesadas en este debate son la industria del sector (con participación de Gobiernos, aseguradoras, grandes grupos farmacéuticos, médicos y hospitales), la población (pacientes potenciales) y los medios de comunicación, pero sus intereses son divergentes. La información a los consumidores en materia de salud (CHI por sus siglas en inglés) abunda en impresos que cabe clasificar en informativos, persuasivos y publicitarios. La televisión, internet y el móvil hacen posible una nueva gama de géneros mixtos (como los *blogs* o los grupos de apoyo en línea). Esta plétora de material espolea la competitividad en cuanto a los textos que presentan los diversos medios de comunicación. En el futuro, será práctica habitual la comunicación en tiempo real, al minuto, entre pacientes, médicos y especialistas. Estamos asistiendo a una transición entre el recurso a las fuentes tradicionales de información y a las nuevas en lo que respecta a la salud. Este artículo presenta brevemente la evolución del sector en Alemania y estudia sus efectos en la comunicación de la información a los consumidores, centrándose en la capacidad de comprensión, de persuasión y en la relación autor-lector. Por último, se analiza la contribución de los textos de promoción de la salud a la sensibilización y al empoderamiento de la población en este tema.

**Palabras clave:** CHI, revistas de salud, telemedicina, portales de salud, comprensibilidad.

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### Introduction

In 1995 I wrote an article entitled “A Pill for Every Illness – Englische und deutsche Ratgebertexte für Patienten” for the journal *Fachsprache* (Busch-Lauer, 1995)<sup>1</sup> in which I examined the textual features of major genres devoted to the medical education of the public in both the German and the English-speaking world. Now, almost 16 years later, it is time to re-examine the topic and to trace the major changes that have taken place in Germany in the meantime. In this article, I will first consider some developments in the healthcare sector that explain both the demand for and use of comprehensible consumer health information (CHI). Then I briefly examine

the communication channels employed and consider the textual features of some selected genres used in this context. Finally, the article will address the impact of health promoting texts on the health awareness and empowerment of the population.

### Current Trends in the German Healthcare Sector

In her recent analysis of TV-based health education, Brünner (2011)<sup>2</sup> points to some trends currently prevailing in the German medical and healthcare environment. First we can state that the German healthcare sector represents one of the most important “industries” of the country, with 4.2

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million jobs and a sales volume of EUR 240 billion (corresponding to 11% of total sales) per year (Brünner, 2011: 22). So it is not surprising that medical issues are among the most prominent topics in public debate. This is spurred, on the one hand, by the advancement of medical findings that also require a better understanding of complex processes by patients. Moreover, it is prompted by spontaneous outbreaks of diseases (*cf.* the EHEC epidemic in Germany), resulting in serious concerns of the entire population and media hysteria. Third, there is an ongoing decrease in the number of general physicians and specialist doctors, in particular in rural areas in Germany, and an ever-increasing number of (elderly) people to treat. In this context, empirical research revealed that patients are increasingly dissatisfied with the current system and want better doctor-patient communication (Brünner, *ibidem*). The waiting time to consult a specialist is sometimes unbearably long as is the time patients spend in the waiting room, with an average doctors' consultation time of only a few minutes. In a European comparative survey, the Picker Institute (2006)<sup>3</sup> reported that only 29% of German patients assessed their communicative experience with doctors as "positive". Many patients do not trust their doctors and become non-compliant because physicians often need to adhere to a strict time schedule during doctor's consultation and to a regulated small budget. Not surprisingly, doctors themselves are disappointed and would like to improve communication practice with patients to increase patients' compliance. However, time and budget restrictions hamper this process. The cost explosion in the healthcare sector is yet another contributing factor.

As a consequence, the extent of "self-medication" has risen over the years, which can be derived from the per-capita expenses for over-the-counter (OTC) products including pharmaceuticals. Thus, the need for hands-on knowledge and timely responses to symptoms of disease is crucial – in the interest of patients themselves and any party involved in the health sector. Obviously, the demand for better medical information and self-education is also increasing. In this context, CHI plays a crucial role. The influence of the media (television, radio) has grown exponentially, almost dominating print material. In particular the Internet has enabled multi-faceted information retrieval and exchange. In fact, every third German searched the web for some medical advice at least once per month in 2009 (test *Journal Gesundheit*, 2009/6: 87).<sup>4</sup> According to the lifestyle magazine *Men's Health*<sup>5</sup> a long-term study of the University of Erlangen-Nürnberg revealed that the Web has now turned into the first source of reference for any health issue. During the three-year-period of the study, access numbers increased from 44 to 57 percent.

Online access to medical information is easy and fast. When doing a Google search for the word *Gesundheitsratgeber* (Health Advice), a surprising 491,000 hits were returned in only 0.27 sec. The search for the term *Gesundheitsblog* (Health Blogs) resulted in 278,000 hits (0.32 sec.). The consumer is overwhelmed by this mass of information. Consequently, rating sites such as Goldene Spree – Health Market-

ing<sup>6</sup> have compiled an overview of material and evaluated the existing sites. About 23,000 Internet health portals exist in German. These basically cover the following sections: general health portals, health communities (both for doctors and patients), medical directories and yellow pages (support for doctor and hospital search), health blogs, and drug comparison sites. Moreover, interactive websites have been evolving, e.g. <[www.amedo.de](http://www.amedo.de)>, which offer individuals the opportunity to set up and personalize health information profiles.

The only risk of these new developments is that users need to be aware of the potentially low trustworthiness of sites and the dangers of misinformation and manipulation. Of course, regular quality checks are performed in the meantime and will also be required in the future. Thus, a study performed in 2009<sup>7</sup> revealed that only three portals met the set quality criteria. Nonetheless, people use health portals increasingly for "empowerment", for developing proactive self-responsibility in decision-making when health problems occur. But can one really trust the information provided on the sites, and do they replace doctor's advice? These are issues to be addressed by healthcare professionals in the near future.

### **Communication Channels in the Promotion of Health Issues**

There are a wide variety of channels offered to retrieve information on medical and healthcare issues: When medical problems (e.g. symptoms of disease) are presenting, lay people usually first rely on their previous experience with diseases and their treatment options before they consult the doctor (for the reasons described above). Health issues are critical, so anonymous, fast and comprehensible information retrieval is welcome. Moreover, the exchange with other "sufferers" counts. This is why so many patients refer to the abundance of CHI and support groups on the Internet or to printed material available from health authorities and general journals as well as newspapers. Television health shows have also proved to be popular, entertaining and a valuable source for propagating health issues. Finally, the Internet has turned out to be almost ideal: multifaceted information, multimedia presentation, fast and anonymous access, personalized and interactive support.

Figure 1 lists the major communication stakeholders (from medical expert to layperson) in this knowledge transfer area of medicine, their communication relationships (from symmetric to asymmetric knowledge transfer) and examples of commonly used genres (oral and written).

### **Medical and Healthcare Information in Germany 2011**

Consumer healthcare information (CHI) is located at the intersection of medicine/healthcare, journalism and the general public. The main purpose of such texts is to disseminate medical knowledge (basically on symptoms, signs and diseases, their treatment and prevention) both in oral or written formats to the interested public. They also provide comprehensible advice as well as recommendations on general well-being. CHI both informs and educates. Consequently, the texts in this field must be informative, instructive and

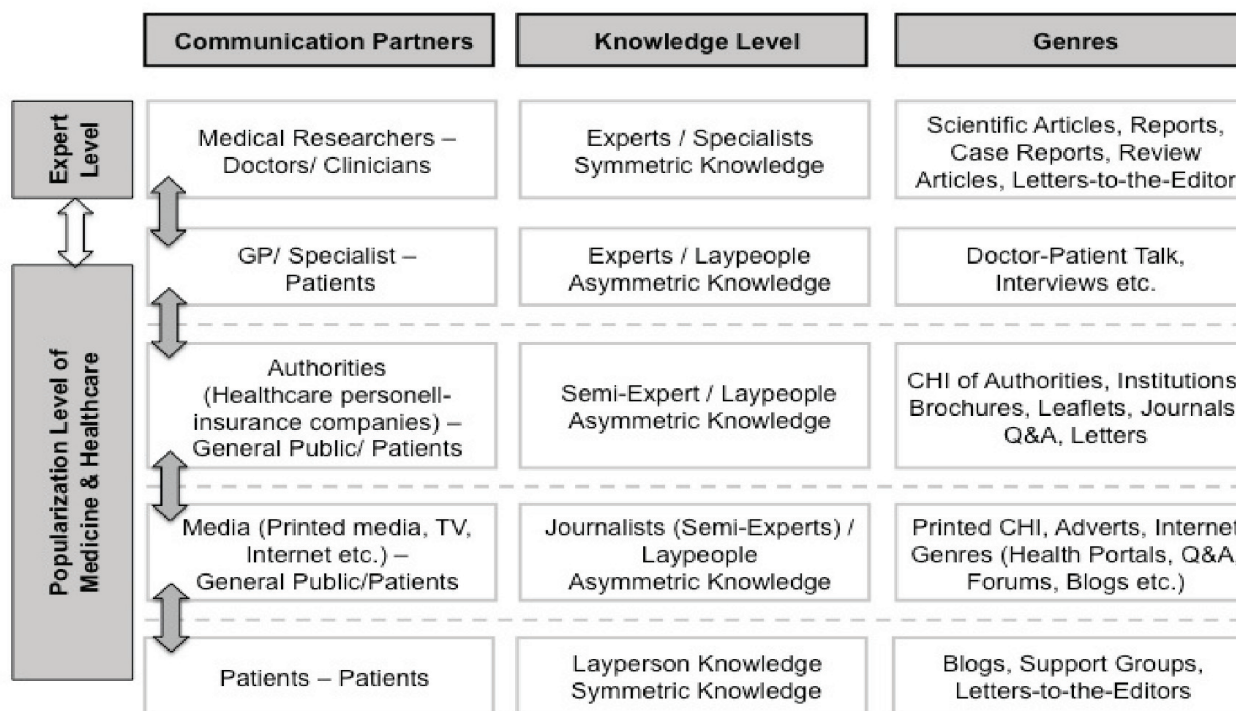


Fig. 1: Interface between Experts and Patients for Medical Information and Education

must change the behavioral patterns of people to urge them towards medical awareness, empowerment and compliance. They need to be professional, trustworthy and comprehensible.

The CHI genre spectrum is broad: Traditional media include printed material as published in brochures, leaflets, journals, newspapers but also oral formats like paper presentations from doctors for patients, discussions and health campaign activities. It also includes TV health shows, broadcasts and documentaries. Internet-based portals, interactive online sites, and telemedicine as well as personalized health profiles on mobile devices represent new forms of information exchange. In the following sections, some characteristics of these genres/texts will be exemplified.

### Traditional Media

People usually make use of sources of information that are familiar to them. So it is not surprising that the older generation is more likely to refer to printed material and the TV than the Web 2.0 generation. However, despite increasing Internet consumption, television is still a major medium for information retrieval (67%) for those aged 40 and below (Brüner, 2011: 21). In the following section we briefly consider the characteristics of traditional sources of reference for health issues and refer to health magazines, advertisements and TV broadcasts.

### Health Magazines

APOTHEKEN UMSCHAU AND GESUNDE MEDIZIN

*Apotheken Umschau* (published since 1956 by Wort & Bild Verlag) is the most widely disseminated, free-of-

charge popular bi-monthly magazine on health and education in Germany available in pharmacies. The publisher also addresses the specific needs of the elderly, of young parents and of people suffering from diabetes with specific monthly journals. All magazines are mainly sponsored by advertisements (one issue includes an average of 30 adverts for medical products) and accompanied by clearly structured websites containing more links and sections for further reading.

The readership of *Apotheken Umschau* currently amounts to 19.97 million people which corresponded to a market segment of 30.8% in 2009, and of 31.5% in 2010. The average age of the readers is 50+, with 68% having a *Hauptschulabschluss* (a completed modern secondary school education). The above parameters require that the magazine be highly comprehensible and refer to the exact needs of its readers. In fact, it has a very colourful layout, and includes a lot of illustrations and visual elements. The magazine is strongly marketed by regular spots on TV. Its main purpose is defined as follows:

(*Die Apotheken Umschau*, IBL) gibt wertvolle Ratschläge und vermittelt aktuelles medizinisches Wissen auf seriöse, fachlich kompetente und allgemeinverständliche Weise.<sup>8</sup>

(*Apotheken Umschau*, IBL) provides valuable advice and educates readers by supplying current medical knowledge in a serious, professional and generally comprehensible linguistic format.

Every issue is devoted to a specific medical topic or condition. This is announced on the colorful front cover (*vid. samples*). The main proposition (or eye-catcher) is printed in yellow letters, supplemented by a microproposition or phrase to be the anchor to the reader. See the examples below taken from *Apotheken Umschau*.

“Bluthochdruck – Die stille Gefahr” (15/9/2011)	“High Blood Pressure – The Silent Danger”
“Heilpflanzen – Die gesunde Kraft der Natur” (1/08/2011)	“Medicinal Plants – The Healthy Energy of Nature”
“Besser atmen – Therapien für eine freie Nase” (15/07/2011)	“Better Breathing – Therapies for Free Breathing”
“Länger fit – So schaffen auch Sie es” (15/06/2011)	“Healthy and Fit Longer – And Here Is How You Can Do It”
“Wechseljahre – Was Körper und Seele hilft” (15/08/2011)	“Menopause – Help for Body and Soul”

Moreover, there are regular sections. These include: *Editorial*, *Aktuell* (News), *Titel* (title topic), *Rat & Hilfe* (Advice & Help), *Natur* (Nature), *Forschung & Wissen* (Research & Findings), *Leben & Genießen* (Life & Enjoyment of Life).

HEADLINES

Both cover story and section texts are introduced by “anchor headlines” or attractive pictures. For example, the text title “Manche mögen’s heiß” (example 1) has a typical double meaning: As an eye-catcher it refers to the film “Some Like It Hot” (1959), working perfectly with the older generation, but in fact, some viruses like it hot. Only the subtitle gives the reader a clue of the medical condition: “Sommergrippe” (summer flu).

Example 1:

Manche mögen’s heiß. Sommergrippe. Viele Viren sind jetzt besonders aktiv. Die Folgen: Husten, Schnupfen und Halsweh. ( <i>Apotheken Umschau</i> , 15 June 2011: 28)	Some like it hot: Summer flu. Many viruses are particularly active in this season. The results: cough, sniffles and sore throat. ( <i>Apotheken Umschau</i> , 15 June 2011: 28)
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INTRODUCTIONS

The texts usually start with an everyday incident, a real or fictional patient’s story, an analogy or metaphor and address the reader indirectly (using personal pronouns and inclusive “we”). This anchoring function then leads to the consideration of a problem or condition and its successful therapy, including recommendations and further reading/

reference to the Internet. Sometimes a rhetorical or real question is a good starting point for the explanation of medical symptoms and conditions. Sometimes a fictitious dialogue/interview with a doctor continues the story. To signal their specific competence, the specialization of the doctor is usually named (e.g. *Virologe*). The language used in these “intro” parts is characterized by everyday language and collocations, which are very comprehensible and draw in the reader.

Example 2:

<b>Ganz schön gemein:</b> Andere <b>tummeln sich</b> im Schwimmbad, sitzen im Biergarten, <b>radeln</b> oder joggen durch den Stadtpark – und <b>uns läuft ständig die Nase</b> . Jetzt sind Schnupfen, Halsschmerzen und Husten <b>besonders lästig</b> , zumal es im Sommer <b>viel schwerer fällt, das Bett zu hüten</b> . Doch auch bei einer Sommergrippe sollten <b>Sie</b> sich schonen. ( <i>Apotheken Umschau</i> , 15 June 2011: 28; bold print indicates everyday language and reader involvement – <i>uns, Sie</i> )	<b>It’s really not fair.</b> People <b>splashing</b> in the pool, enjoying the “Biergardens”, <b>cycling</b> or jogging in the park – and <b>our stuffy noses just keep running</b> . Having a cold with a sore throat and cough <b>is extremely unpleasant</b> , since <b>nobody really wants to have to stay in bed</b> during summertime. But even for a summer flu, it’s important for <b>you</b> to rest and take care of yourself. ( <i>Apotheken Umschau</i> , 15 June 2011: 28; bold print indicates everyday language and reader involvement – <i>our, you</i> )
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Example 3:

Die <b>Symptome</b> sind die gleichen wie im Winter. (...) Anders als <b>Influenzaviren</b> mögen es die <b>Erreger der Sommergrippe</b> heiß. “Vor allem die zu den <b>Enteroviren</b> zählenden <b>ECHO- und Coxsackie-Viren</b> sind unempfindlich gegen Austrocknung und UV-Licht” [...]. ( <i>Apotheken Umschau</i> , 15 June 2011: 28; bold print indicates medical terms)	The presenting <b>symptoms</b> are the same as in winter. (...) But, unlike the <b>influenza viruses</b> , the <b>germs</b> of a summer flu like it hot. “ <b>Echoviruses and Coxsackie viruses</b> (belonging to the group of <b>enteroviruses</b> ) are most resistant to dehydration and UV light” [...]. ( <i>Apotheken Umschau</i> , 15 June 2011: 28; bold print indicates medical terms)
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PERSUASIVENESS

Citation of experts conveys trustworthiness and reliability of the textual propositions and recommendations. Moreover, the quotes implicitly call the reader to take action, like in example 4 below: It is recommended to get a shot against Herpes viruses, in particular when growing older. In example 5, explicit advice is provided. Quotations from the expert make the message more reliable and trustworthy. The three-day period to relieve the condition is often used as a rule of thumb

before a doctor should be consulted. So the text implicitly empowers the patient to take on responsibility for their own situation before a doctor needs to be consulted.

**Example 4: Viren auf der Lauer** (German for “Viruses lurking everywhere”)

<p>Die Impfung senkt das Risiko für einen Herpes Zoster um die Hälfte, das Risiko für einen komplizierten Verlauf mit einer postzosterischen Neuralgie um zwei Drittel“ [...]. Ein Ergebnis, das für die Impfung im Alter spricht. (Apotheken Umschau, 15 June 2011: 40)</p>	<p>Vaccination reduces the risk of herpes zoster by half and minimizes by two thirds the complications of postherpetic neuralgia.” [...] This result supports vaccination as patients age. (Apotheken Umschau, 15 June 2011: 40)</p>
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**Example 5: Zeigt her Eure FüÙe** (headline derived from a famous German children’s song, “Show us your feet...”)

<p>Werden die Zehen sehr gequetscht, bilden sich manchmal Hühneraugen - also Hornhautzapfen, die in die Tiefe wachsen. Sie können sehr schmerzhaft sein und sollten im Rahmen einer medizinischen Fußpflege entfernt werden. (...) Falsche Turnschuhe begünstigen Druckstellen und Hornhaut. ‘Auch die Strumpfwahl ist entscheidend’ [...]. Viele Sportgeschäfte führen Laufsocken ohne störende Nähte. (...) Mit Anti-Pilz-Cremes bekommen Sie Fußpilz schnell in den Griff. ‘FüÙe mit einem Extrahandtuch abtrocknen’ [...]. Waschen Sie Strümpfe bei 95 Grad, lüften Sie Schuhe gründlich. Tritt nach drei Tagen keine Besserung ein, bitte zum Arzt gehen. (Apotheken Umschau, 15 June 2011: 74-75).</p>	<p>When toes are repeatedly squeezed together, e.g. in too tight shoes, corns and calluses sometimes result, which may grow deeply into the skin. These can be really painful and should be removed during medical pedicure. (...) The wrong sneakers may prompt pressure points and calluses. ‘It’s also the right selection of socks that counts’ [...]. Many sports shops offer running socks without any disturbing stitching. (...) You can easily deal with athlete’s foot by applying anti-fungus cream. ‘Dry your feet with a separate towel’ [...]. Wash your socks at 95°C degrees, and air your shoes thoroughly. If there is no relief after a period of three days, please consult your doctor. (Apotheken Umschau, 15 June 2011: 74-75).</p>
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**MEDICAL TERMS AND DEFINITIONS / EXPLANATIONS**

The use of medical terms illustrates the author’s professional knowledge and familiarity with the topic. Terms are introduced in inductive form; usually an explanation/description is given first and then the term is provided (*vid.* examples 5-7). For this purpose bold print, parentheses or other signals of term explanations are used.

**Example 6: Zellkultur (Cell culture)**

<p>Künstliche Haut für Transplantationen stammt aus körpereigenen <b>Oberhautzellen</b> des Patienten. Sie bilden in Kultur einen eingeschlossenen Zellrasen – das Epidermishäutchen. (Apotheken Umschau, 15 June 2011: 40).</p>	<p>Artificial skin used for transplantation is taken from the patient’s own <b>epidermal skin cells</b>. In vitro, these cells develop into a complete cell layer – a piece of epidermal skin. (Apotheken Umschau, 15 June 2011: 40).</p>
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**Example 7: Zellkultur (Cell culture)**

<p>Aus den Zellen einer bössartigen <b>Geschwulst des Bindegewebes</b> (Fibrosarkom) lassen sich bestimmte Arzneistoffe für die Therapie von Stoffwechselerkrankungen gewinnen. (Apotheken Umschau, 15 June 2011: 40).</p>	<p>Cells taken from a malignant <b>tumor of the connective tissue</b> (fibrosarcoma) may be used to develop drugs to cure metabolic diseases. (Apotheken Umschau, 15 June 2011: 40).</p>
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**Example 8: Zellkultur (Cell culture)**

<p><b>HeLa-Zellen</b> waren die erste menschliche Zelllinie überhaupt. 1951 entnahmen Ärzte sie aus dem Gebärmutterhalstumor der Patientin <b>Henrietta Lacks</b>. Heute dienen sie zum Beispiel zur Impfstoffproduktion. (Apotheken Umschau, 15 June 2011: 40).</p>	<p><b>HeLa cells</b> were the first human cell lines at all. In 1951 physicians isolated them from a tumour of the neck of the cervix from a patient called <b>Henrietta Lacks</b>. Today they are used, for example, to produce vaccines. (Apotheken Umschau, 15 June 2011: 40).</p>
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**OVERALL TEXTUAL COMPREHENSIBILITY**

But how comprehensible is this popular health magazine in general? A study performed by communication scientists at the University of Hohenheim (Brettschneider *et al.*)<sup>9</sup> revealed that the comprehensibility level of *Apotheken Umschau* is slightly lower than expected. Using TextLab software, the scientists measured the difficulty of the texts (foreign words, amount of medical vocabulary). According to their results, the articles of *Apotheken Umschau* generally do not contain more than five percent medical terminology and slightly below ten percent foreign words. The consecutive text optimization test with 379 people (59% females and 41% males) revealed that comprehensibility could be improved significantly through easily readable vocabulary and better sentence structure. Both the subjective ranking of the texts by the test group and the probability of having a positive effect on the behavior of the readers improved. The study of Brettschneider *et al.* clearly points out that further research into the comprehensibility and trustworthiness of textual information is required in the field of CHI.

In contrast, the corresponding Internet portals of the health magazine are very well structured and user-friendly. The navigation includes: News, Diseases A-Z, Symptoms, Medication, Diagnosis & Therapy, Addresses & Encyclopedias, Better Life. These navigation points provide for excellent orientation. A search function is supplementary as is the section *Unsere Klick-Tipps* (Our Links).

The monthly magazine *Gesunde Medizin – Das Magazin für mehr Wohlbefinden* (published by PAC, <[www.gesunde-medizin.de](http://www.gesunde-medizin.de)>) is devoted to health issues and general well-being. Beyond medical advice it includes recommendations for beauty and fitness, travel, health, nutrition and general entertainment. It addresses a wide scope of readers, possibly also those who would like to test new products (like the section *Experten-Club – Leser testen für Leser*) and agree to write comments on these. The Section *Experten-Club-Bericht – Leser raten Lesern* deals with a specific topic, e.g. *Schwangerschaftsbeschwerden* (pregnancy-related problems). It includes letters-to-the-editor from interested readers, basically lay people, who write about their experience with specific medical conditions in order to help others. Simplified methods of knowledge transfer are used here, e.g. storytelling, everyday language and circumscription of medical symptoms.

METAPHORS AND ANALOGIES

The CHI texts are very comprehensible because they include a lot of metaphors and analogies (for form, function and operation), an explanation or everyday equivalent for medical terms as well as a clear description of symptoms to differentiate between medical terms, *vid.* examples 9, 10 and 11:

**Example 9: Denken, Sprechen, Fühlen – Unser Gehirn ist zu ganz erstaunlichen Leistungen fähig (Thinking, Talking, Feeling... Our brains are capable of amazing feats)**

<p>Die <b>Schaltzentrale</b> für den Körper befindet sich in unserem Kopf: [...]. Das menschliche Gehirn ist etwa so groß wie ein <b>Blumenkohl</b>, wiegt 1 300 bis 1 500 Gramm und macht damit nur etwa zwei Prozent unseres Körpergewichtes aus. [...] Mehr als hundert Milliarden Nervenzellen <b>stehen</b> im Gehirn über ein kompliziertes <b>Netzwerk miteinander in Verbindung</b> und sorgen dafür, dass unser Leben in <b>geordneten Bahnen</b> verläuft. [...] Das Gehirn <b>besteht aus mehreren Abteilungen</b>, von denen <b>jede für ganz bestimmte Aufgaben zuständig ist</b>. (<i>Gesunde Medizin</i>, 9/2011: 24).</p>	<p>The <b>control switches for our body functions</b> are located in our head: [...]. The human brain is possibly the size of a <b>cauliflower</b>, weighing about 1,300 to 1,500 grams, and accounts for just about two per cent of our body weight. [...] More than a hundred billion nerve cells are <b>interlinked in our brains over a complicated network</b> and ensure that our bodily processes function <b>as they should</b>. [...] The brain has several <b>distinct areas, each functioning like a department with its own specific tasks</b>. (<i>Gesunde Medizin</i>, 9/2011: 24).</p>
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**Example 10: Was tun bei Gelenkschmerzen? Medikamente und Behandlung (What to do for joint pain - Drugs and treatment)**

<p>Die Gelenke sind die <b>Scharniere</b> des Körpers und daher besonders großen Belastungen und <b>Abnutzungserscheinungen</b> ausgesetzt. Das macht sich vor allem im höheren Lebensalter bemerkbar. Fast jeder Mensch über 65 Jahre leidet in mehr oder weniger starkem Ausmaß an Arthrose, dem fortschreitenden <b>Verschleiß</b> des Gelenknorpels, bei gut einem Viertel ist dies zugleich mit schmerzhaften Beschwerden verbunden. (<i>Gesunde Medizin</i>, 9/2011: 54).</p>	<p>The joints are the <b>hinges</b> of the body and therefore exposed to particularly extreme strain as well as <b>wear and tear</b>. This will be particularly noticeable with greater age. Almost everybody over 65 is suffering more or less from arthrosis, the progressive <b>abrasion</b> of cartilage, with a quarter of all patients suffering from pain. (<i>Gesunde Medizin</i>, 9/2011: 54).</p>
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**Example 11: Was tun bei Gelenkschmerzen? Medikamente und Behandlung (What to do for joint pain - Drugs and treatment)**

<p>Durch die Art des Schmerzes lässt sich allerdings häufig schon eine Unterscheidung zwischen einer <b>Arthrose</b> und <b>entzündlichen Erkrankungen</b> (wie <b>Arthritis</b>) treffen. Bei einer <b>Arthrose</b>, also einem <b>Gelenkverschleiß</b>, entsteht im Laufe des Tages ein <b>zunehmender Belastungsschmerz</b> oder – nach einer Ruhephase – ein <b>kurzer Anlaufschmerz</b>, der bei Bewegung wieder nachlässt. Dagegen äußert sich eine <b>entzündliche Erkrankung</b> durch einen <b>andauernden Schmerz in Ruhe</b>, häufig auch nachts. Charakteristisch für die <b>Arthritis</b> ist eine <b>Morgensteifigkeit der Gelenke</b>. Dazu kommen <b>Schwellungen</b> und eine <b>Überwärmung</b>. (<i>Gesunde Medizin</i>, 9/2011: 55)</p>	<p>The kind of pain usually allows for a differentiation between <b>arthrosis</b> and <b>inflammatory diseases</b> (such as <b>arthritis</b>). In arthritis, also known as <b>abrasion of cartilage</b>, pain develops with <b>increasing strain</b> throughout the day or – following a period of rest – with a <b>short warm-up pain</b>, which will be relieved when moving. In contrast, an <b>inflammatory disease</b> involves <b>permanent pain at rest</b>, even at night. <b>Arthritis</b> is usually characterized by a <b>morning stiffness of the joints</b>. What's more, there is <b>swelling</b> and <b>hyperthermia</b>. (<i>Gesunde Medizin</i>, 9/2011: 55)</p>
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Reader involvement is established using inclusive “we”-forms. Thus readers consider themselves part of the com-

munities of “sufferers” and the aches and pains are relieved faster...

**Gesund – Newspaper Supplement and New Media in Journals**

The regional newspaper *Leipziger Volkszeitung* offers a weekly 16-page supplement entitled *Gesund* (Healthy). This can also be accessed online at <www.gesund-magazin.de/>. The structure of the supplement resembles ordinary newspaper articles both in length and style. However, the headlines have an even more catchy approach, vid. example 12. Only the subtitles let the reader know what the text will be about. Moreover, they prompt the reader to take a decision: read on or stop reading. Usually the headline is short (one to three word(s) – like keywords in an index or search engine – which provoke associations).

TITLES AND SUBTITLES

**Example 12: Headlines of *Gesund***

<p><b>“Wach im OP”</b> Narkose. Es ist eine Horrorvorstellung: Während der Operation aufzuwachen – trotz Narkose. Das könne passieren, sei aber selten, sagt eine Anästhesistin. (<i>Gesund</i>, 16/2011, 1)</p> <p><b>Weckruf des Körpers.</b> Gähnen. Seit 30 Jahren suchen Experten nach dem Sinn. Ist es ein sozialer Akt? (<i>Gesund</i>, 16/2011, 4)</p> <p><b>Das Blaue im Essen.</b> Heidelbeeren. Der Frucht werden Heilwirkungen nachgesagt. Ihr Farbstoff Anthocyan gilt als gesundheitsfördernd. (<i>Gesund</i>, 16/2011, 6)</p> <p><b>Nass oder trocken?</b> Gesichtspflege. Wie Männer am besten das alltägliche kosmetische Ritual bewerkstelligen (<i>Gesund</i>, 16/2011, 8)</p>	<p><b>“Awake in the Operating Theatre”</b> Anesthesia. It is a real nightmare: To wake up during an operation – despite anesthesia. This may happen; however, it is rare, says an anesthesiologist. (<i>Gesund</i>, 16/2011, 1)</p> <p><b>Body Alert.</b> Yawning. For about 30 years experts have been searching for its purpose. Could it be a social act? (<i>Gesund</i>, 16/2011, 4)</p> <p><b>The blue in your meal.</b> Blueberries. This fruit is said to be curative. Its dye - anthocyanin - is widely known for promoting health. (<i>Gesund</i>, 16/2011, 6)</p> <p><b>Wet or dry?</b> Facial care. How men can best cope with this daily cosmetic ritual. (<i>Gesund</i>, 16/2011, 8)</p>
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STORY-TELLING TO ESTABLISH WRITER-READER RELATIONSHIP

The introductory passages of the texts in this supplement have a journalistic touch. Usually they first establish the writer-reader relationship and then prepare the reader for the topic to be discussed. Example 13 provides a good example for this approach (*Gähnen* – Yawning). This “bridging” function is typical for popularizing scientific topics.

**Example 13: Weckruf des Körpers (Our body’s wake-up call)**

<p>Wenn Sie diesen Beitrag bis zum Ende lesen wollen, sollte Ihnen eines vorher klar sein: Sie werden möglicherweise dabei gähnen. Das hat mit Langeweile nichts zu tun und ist auch gar nicht schlimm. Denn Wissenschaftler haben herausgefunden, dass allein beim Lesen von Texten übers Gähnen die Ansteckungsgefahr enorm groß ist. (<i>Gesund</i> 16.9.2011: 4)</p>	<p>As you continue reading this article, you should be aware of the following: You will probably start yawning. However, this has nothing to do with boredom and it is not bad, by any means, because scientists have revealed that just by reading texts about yawning, we are much more likely to actually yawn. (<i>Gesund</i> 16.9.2011: 4)</p>
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A possibly new trend is that editorial boards of weekly magazines (of the yellow press) supplement their print issues with CD or DVD material. The women’s magazine *Neue Post* has recently supplied a CD which will train readers in the use of health portals on the Internet: *Get your license for the “Internet-Führerschein® Gesundheit”*. The program is made up of user-friendly dialogues on how to use the hardware, the browsers and to maneuver through the jungle of health information. The dialogues are clearly instructive even for the older generation. The CD was compiled by a pharmaceutical company, a website provider for the elder generation and two yellow press magazines.

The widely disseminated magazine *Focus* (readership amounts to 5.5 million people) has recently started a health series, the second part of which is devoted to “hypertension” (“Bluthochdruck – jetzt heilbar? Die neuesten Therapien”, *Focus*, 39/11: 106). The cover story is introduced by two patient case histories, then the symptoms and signs of hypertension are explained using a number of visual elements. Therapy and treatment methods are explained. A list of specialists complements the information. Since the readership of *Focus* is fairly widespread as regards age distribution, the editorial board has also decided to supplement the print issue by a DVD (45 minutes in length). The individual chapters are structured in the form of a patient story in which the viewer considers how patients recognized their symptoms, consulted their doctor and finally received treatment. Advice and a quick self-test complete the DVD.

(1) Bluthochdruck – was ist das?	(1) Hypertension – What Is It?
(2) Die Ursachen	(2) The Causes
(3) Wie die Gesundheit leidet	(3) How Health Suffers
(4) Die richtige Messung	(4) The Correct Measurement
(5) Die Therapien	(5) The Therapy
(6) Gute Werte – ohne Medikamente	(6) Good Levels – Without Medication
(7) Test – bestimmen Sie Ihr Risiko	(7) Test – Define your Risk
(8) Die besten Tipps	(8) Best Advice

The addition of digital offerings (either websites or DVDs) to the print material indicates further development in the information age towards a change in methods of information retrieval: multimedia with better visualization, more comprehensive and comprehensible. Obviously, both the young and the older generation shall be addressed.

**CHI and Advertisement for Health Products**

A famous German drugstore chain has recently started a direct mail marketing campaign directed to the promotion of health products and health information. A small brochure offers a specific “health week” during which particular health products will be sold at discounted prices. The front cover of the brochure shows a nice cup of tea with a slice of lemon and a peppermint leaf. A red button printed above the cup draws the attention of the reader to the “planned health week” and related activities (e.g. discounts on specific products), and a green banner includes the slogan “*Mein Rezept heißt* (name of the drug chain)”. In German “Rezept” has a double meaning: One is “Prescription” (which you won’t need because the drug chain provides all you need for staying healthy) and the other is “Recipe” (you follow a healthy lifestyle and won’t fall ill).

The brochure starts with a personal letter establishing an atmosphere of familiarity with the reader. Your drug chain cares for YOU. Epithets (adjectives) help to establish this very personal relationship: “*wohltuende Produkte*”, “*interessante Informationen*”, “*sorgfältige Auswahl*”, *vid.* example 14.

**Example 14: Advertising Brochure**

<p>Zahlreiche <b>wohltuende Produkte</b> finden Sie auch in dieser Broschüre – sorgfältig ausgewählt und <b>mit interessanten Informationen</b> kombiniert. Schauen Sie doch gleich mal nach! (<i>dm</i>, 2011: 2) Ob <b>besonders sanft</b> und <b>verträglich, natürlich, ökologisch</b> oder <b>medizinisch wirksam</b> – in nahezu allen Sortiments-Bereichen Ihres XX-Marktes finden Sie Produkte, die <b>einfach gut fürs Wohlbefinden</b> sind. (<i>dm</i>, 2011: 3)</p>	<p>You will also find numerous <b>products to keep you healthy</b> in this brochure – carefully selected and paired with <b>interesting information</b>. Take a look right away! (<i>dm</i>, 2011: 2) <b>Being particularly gentle or tolerable, natural, ecological or medically effective</b> – in almost all ranges of products of your XX-chain you will find products that are <b>simply good</b> for your <b>well-being</b>. (<i>dm</i>, 2011: 3)</p>
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Apart from this advertising function, the brochure also provides some medical information using the slogan “*Unter die Lupe genommen*” (“Put under the microscope”). For this purpose, the red spot from the cover is reprinted on the back cover in the form of a red foil, which can be used by the customers to check their medical knowledge when answering the questions printed in red spots on every page. Each correct answer can be retrieved using the foil, which turns unreadable marks into readable letters, as in example 15.

**Example 15:**

<p>Was ist Homocystein? Homocystein ist ein gefährliches Stoffwechselfgift. Zu hohe Homocysteinwerte steigern z.B. das Risiko für Gefäßerkrankungen. (<i>dm</i>, 2011: 8) Welches ist das größte Organ des Körpers? Die Haut ist das größte Organ des Körpers – sie bedeckt etwa 1,5 bis 2 m<sup>2</sup> und macht rund 1/6 unseres Körpergewichts aus. (<i>dm</i>, 2011:30)</p>	<p>What is homocysteine? Homocysteine is a dangerous metabolic substance (poison). If levels of homocysteine are too high, the risk of vascular diseases increases. (<i>dm</i>, 2011: 8) Which is the largest organ in the body? The skin is the largest organ in the body – it covers approx. 1.5 to 2 m<sup>2</sup> and makes up about 1/6 of our body weight. (<i>dm</i>, 2011:30)</p>
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This advertising brochure is at the low end of CHI. Its main idea is to promote the drugstore chain’s products. The inclusion of indirect medical knowledge pursues two aims: to make the brochure look more medically serious and trustworthy – meaning we help you stay alive and kicking – and to prompt consumers to keep themselves and their doctors informed about certain conditions using the leaflets and marketing material of this drug chain. Incidentally, that means the customers get to know more details about their body and will increase the sales volume of the provider.

**Medical Issues in TV Broadcasts**

For many years, television broadcasts have been a popular medium for information transfer and entertainment. This is still true: television attracts most people of almost all age groups in their spare time. In her analysis, Brünner (2011: 25) points to the fact that in 1996 there had already been 14 regular health and medicine broadcasts on German TV channels. Current broadcast ratings show that about 10% of the viewers regularly choose health programs, which clearly seems to be a signal of the population’s health awareness. A wide spectrum of genres has developed: First, there are the plain medical advice programs (*Ratgebersendung*) with a fixed schedule (including a mix of film sequences and call-ins, interviews with experts, panel discussions of patients and/or doctors and medicine talks). Among the most prominent in this first category is: ARD: *Ratgeber Gesundheit*. Then there are mixed formats that also include aspects of entertainment (e.g. sports, healthy cooking): MDR: *Hauptsache Gesund* (since 1998) and ZDF: *Gesundheit!*. Moreover, there is a broad range of entertaining TV broadcasts including medical and healthcare contributions, e.g. 3sat: *nano* or ARD: *ARD-Bufferet*. Medical issues also appear in hospital soaps, the most widely known of which are: *Emergency Room*, *Dr. House*, and *In aller Freundschaft*. The implicit idea behind this “edutainment” is that viewers start to believe that clinicians can always provide help, even in the worst-case scenario. However, soaps of this kind can also prompt shocking overreactions from people regarding

their own health status. Still, soaps seem to make people more aware of medical problems. A third group of programs is comprised of special TV documentaries (e.g. RTL2: *Du bist was Du isst* – You are what you eat) that have proven valuable for information on lifestyle diseases such as overweight/obesity, diabetes and hypertension.

According to Br nner (2011: 33) TV health broadcasts mainly pursue the following objective:

In all health broadcasts, no matter which format they have, the major aim is to inform the viewers about health and its maintenance or about diseases and their causes as well as treatment options; to provide them with medical knowledge and treatment alternatives, on the basis of which they can improve their well-being and strengthen their health or prevent illnesses and constraints from arising at all.<sup>10</sup>

The health programs are usually 45 minutes in length. The expectations of the viewers are fairly high, which can also be noticed when observing the call-in questions. For example, *Hauptsache Gesund* (currently more than 600 shows) is a fairly popular program broadcast by *Mitteldeutsche Rundfunk* – a state-owned broadcasting station. The program presenter is a charming female doctor who interacts with several guests (professionals from different disciplines). However, the main topics cover diseases of civilization: rheumatism, diabetes, hypertension, obesity and chronic pain.

Br nner (2011) closely analyzed 747 broadcasts, 22 talk shows, 8 documentaries and other professional film material. Her major focus was on the general composition of the programs, on the interaction between the presenter and the specialists/guests of the shows and their communicative roles. Moreover, she considered the use of medical terms and the strategies applied for their explanation, the types of visualizations used, the knowledge level of the lay people and the communication strategies applied by doctors in the question-answer sections. Among the many interesting findings of her research, the results show that medical terms are often explained using metaphors (in particular from technology: heart = pump, engine; circulatory system = pipeline system; traffic system), comparisons (e.g. technical processes, human activities) and examples (e.g. case studies). Story-telling and scenic presentations as well as short animated films are used to illustrate sophisticated medical processes. Everyday conversation strategies and everyday language add to the comprehensibility of interviews between presenter and medical specialist. The presenters take on the role of a mediator whenever they feel that terms are too difficult or incomprehensible.

Finally, we can state that television represents a very important medium for the dissemination of medical knowledge to the public and for healthcare management personnel. Despite its entertainment factor, it has acquired a status in the popularization of medical knowledge and is considered a valuable and even interactive medium of information transfer between medical specialists and lay people.

### **Medicine and the New Media**

Information and communication technologies (ICT) combined with wireless and mobile devices are strengthening the production, dissemination and global use of health information. Moreover, a mass of information producers, intermediaries and users are triggering the tremendous growth of easily accessible information. Currently, more than 70 000 websites disseminate health information worldwide; more than 50 million people seek health information online.

But why is this medium so popular? It offers widespread and fast access and lets users take advantage of its interactivity, information tailoring and above all – anonymity. However, a major drawback is that sometimes access is still inequitable and use is hampered by navigational challenges. These include, for example, some design features referring to disorganization, technical language and lack of persistence. Moreover, some critics question the quality of online content because everybody can take a share in the process. As a consequence, information-evaluation skills need to be developed by users. Quality standards and evaluation criteria are required to reinforce the trustworthiness of content.

How and why do people make use of online health content? Consumers access online health information first by direct search, second by participating in support groups (e.g. via blogs) and third by consulting health professionals in chat rooms.

Online health information can be accessed directly from credible scientific and institutional sources (e.g. Medline, Healthfinder). The majority of consumers seeking health information want to have an idea about symptoms and signs of diseases in order to better prepare for their consultation with the physician. Basically, such searches are triggered by a diagnosis and problems with treatment information, which in fact will have an impact on their medical decision-making. Second, consumers also use the Internet to access performance reports, for example for doctors, hospitals or healthcare providers. Third, health-information seekers also access the Internet to join a support group because such groups offer an alternative to professional care and allow for social support and shared experiences (the family of “sufferers”). The major advantage of such often disease-related groups is their ongoing 24-hour availability, anonymity and unlimited number of members.

Finally, consumers use the Internet to consult with their health professionals. This can be done via e-mail or in real-time (Skype). Moreover, new apps and gadgets even allow for submitting medical data and receiving real-time feedback from doctors regarding treatment regimes for diabetics, hypertensives etc. The mature medical consumer/patient knows about normal values for blood pressure, blood sugar level and how to correct irregularities with the help of online doctors using a remote control device.

### **Health Portals and Search Engines**

Research on the quality of German health portals<sup>11</sup> revealed that the benchmark which had been set was only met by three out of the twelve freely available sites (with an aver-

age of 5,000 users per day; all twelve studied health portals had about 6 million users per month). The quality test referred to content (60%), to user-friendliness of the site (30%) and to the handling of consumers' questions (10%).

Content was evaluated for completeness, correctness and neutrality as well as comprehensibility (readability formulae, sentence length), transparency and general structure. The criteria for user-friendliness were compliant with EN ISO 13407 and EN ISO 9241-151 standards (*vid. Journal Gesundheit*, 2009/6: 91). Interactivity was checked by addressing five questions to the expert forums and having the answers checked by independent medical experts (testing for correctness, informativeness and response time).

The study showed that among the search engines wikipedia.de (free encyclopedia) revealed the best search results regarding fast, structured and comprehensible information retrieval. The sites GesundheitPro.de, netdoktor.de and vitanet.de presented the best results for the studied health portals regarding completeness of information, comprehensibility and user-friendliness of the websites. Problems could be detected with some sites regarding factors like navigation and orientation, sorting and selection of information, missing ambiguity and user barriers. Many portals have deficits (missing sitemap, missing content pages, barrier for users suffering from red-green blindness). Multimedia content is sometimes filled with advertisements. Often there is no clear differentiation between information and implicit advertising. Moreover, the medical quality of the advice may be wrong, so reliability of the information is lower than expected. For more details see test, *Journal Gesundheit* 2009/6, available online.

The following table lists a number of prominent English-language health portals which can be used by both consumers and language experts (translators) for up-to-the-minute information on trends and developments in the individual countries.

Health Portal	Year	No. of Visitors
<a href="http://www.nhs.uk">www.nhs.uk</a> (UK)	April 2000	450,000 visits/month
<a href="http://www.healthinsite.gov.au">www.healthinsite.gov.au</a> (Australia)	June 2007	about 2 million visits/month
<a href="http://www.publichealth.gc.ca">www.publichealth.gc.ca</a> (Canada)	2004	800,000 visits/month
<a href="http://www.healthfinder.gov">www.healthfinder.gov</a> (USA)	1997	750,000 visits/month
<a href="http://www.ec.europa.eu/health-eu/index_en.htm">www.ec.europa.eu/health-eu/index_en.htm</a> (Europe)	May 2006	400,000 visits/month

The prominent portal <<http://health.discovery.com>> provides very well-structured and easy-to-use navigation. Alphabetically arranged tabs help the information seeker to easily navigate through the website: Diseases & Conditions; Human Body; Love & Relationships; Medicine; Mental Health;

Pregnancy & Parenting; Sexual Health; Skin Care; Wellness. Moreover, the Encyclopedia section provides definitions according to the following structure: Diseases & Conditions, Injuries, Medical Tests, Poisons, Sexual Health A-Z, Special Topics, Surgeries, Symptoms. A featured article provides in-depth information on a specific topic, e.g. *High Blood Pressure in Depth*. A blog, TV program advice, Video Archive and a Quiz section supplement the broad spectrum of information options.

In conclusion, we can state that health portals usually provide extensive and easy-to access information on the diagnosis, therapy and prevention of diseases. What consumers cannot expect is to receive personalized advice and remote therapeutic recommendations. But research found that most sites proved to be valuable for information retrieval and are supportive in the decision-making process (to consult a doctor or not).

### **Blogs and Cyber-Docs**

A major benefit of the Internet is its capacity for interactivity, which means establishing direct, anonymous contact with other individuals (both lay people and medical experts). Such an interactive approach facilitates the tailoring of messages and the establishment of individual profiles. However, it also bears the danger of miscommunication, improper understanding and possibly also wrong treatment of serious disease. This is why more research needs to be done on this specific type of interaction (e.g. comprehensibility, reliability, impact on decision making by patients).

The Internet also offers opportunities for consumers to engage in interactive professional health communication. Robinson *et al.* (1998)<sup>12</sup> define this as “the interaction of an individual-consumer, patient, caregiver or professional – with or through an electronic device or communication technology to access or transmit health information or to receive guidance and support on a health-related issue”.

The quality of German “Cyber-Doc” communication was evaluated by test *Journal Gesundheit* (2003/4)<sup>13</sup> in detail, testing the comprehensibility and correctness of 19 forums, available free-of-charge and supervised by doctors. This service, mainly provided by health portals, addresses an audience of consumers who want precise and quick responses to their questions instead of browsing a long list of health portals. The questions in the test related to topics such as breast cancer, risk of tick bites, diabetes during pregnancy, risks of mammography and Morbus Bechterew. The results show that cyber-docs usually respond within 3-5 days; however, the quality of the responses varied from complete and comprehensible to poor and incomprehensible. Only 4 out of 24 questions were complete according to experts' rating, which is still insufficient. The best results could be revealed for responses from the *Deutsche Medizin Forum*<sup>14</sup> (with 70 forums on almost all areas of medicine).

This in fact means that people using such forums need to be aware of incomplete and possibly wrong answers. More research is therefore required to detect why this type of interaction still proves to be insufficient. This is particularly relevant

because personalized online interaction resembles doctor-patient talk which is based on a relation of trust. This usually empowers patients and also prompts health behavior changes. Fortunately, a good deal of research has already been done, though in the English-speaking world (*vid. Journal of Consumer Health on the Internet*,<sup>15</sup> *Journal of Medical Internet Research – The leading peer-reviewed eHealth journal*<sup>16</sup>).

### CHI and Empowerment of Consumers/Patients

Currently we are witnessing a transformation in the way people gather information about topical issues: from print to online material. This can also be seen in the field of consumer health information. The amount of print material is still enormous. There is a huge amount of brochures, leaflets and journals regularly published by health insurance and pharmaceutical companies, having a wide dissemination radius. However, medical issues have also penetrated weekly magazines and everyday newspapers as well as the yellow press and the marketing campaigns of pharmacy chains. The structure of these materials is fairly well-organized, the language used is basically adapted to the requirements of the readership (e.g. involving metaphors, comparisons and analogies to make complex medical concepts more comprehensible). The author-reader relationship is easily established through case studies, storytelling or everyday episodes. Both aspects, simplified language and reader involvement, are significant factors to build trust and confidence in the textual statements made. Nonetheless, there is a growing trend to make use of multimedia offerings.

Television is still a widely used medium in Germany to promote health issues addressing both the young and the old generation. The Internet has turned into the No.1 medium for the Web 2.0 generation to get their CHI. The major advantages of this medium are: widespread access to health information, interactivity, tailoring of information to the seeker's own needs, interpersonal interaction and social support by other "sufferers" and, above all, anonymity and quick responses. Nonetheless, the Internet also bears dangers which mainly relate to inaccurate, misleading and dangerous information, overly technical language (despite hyperlinks for further information), information overload and technical problems (lack of performance, disorganized portals, search difficulties, poor user-friendliness and user barriers).

From our brief investigation we can state that health portals, blogs and support forums will form the future of CHI. The transfer of print media into digitized formats allows for better comprehensibility of texts and multimedia approaches to offer explanations of sophisticated medical knowledge. In fact, this means the more comprehensible the information is, the more impact it will have on people's decision-making process regarding their health. The better the genres, the earlier consumers will adhere to their recommendations. Early detection and prevention of disease is of crucial importance, in particular for dealing with serious diseases such as cancer but also for combating diseases of civilization like obesity, hypertension and cardiovascular diseases.

What should authors or translators of consumer health literature be aware of? First of all, factual knowledge and

information transfer is the primary interest of the information seeker. This is why CHI should be helpful, factual, non-emotional, objective, direct and not ambivalent. Health information may be presented in varied formats, including text, graphics and animation. Regardless of the format applied, the content needs to be understandable to users. Thus the text structure must be clear and concise, and the sentence structure easy to grasp. The explanation of medical conditions must be comprehensible so metaphors, comparisons and analogies play a significant role in supporting readability and intelligibility. CHI should be persuasive in order to change human behavior. For this purpose, audience and context analyses should clearly identify the specific needs of consumers in order to build aesthetic format characteristics. Regular quality checks of the individual CHI genres will help to improve the texts and avoid miscommunication. Further research into the quality of online genres is required in order to improve site trustworthiness and encourage consumers to make use of the multitude of information on health issues. In the future, up-to-the-minute, real-time communication between patient(s), doctor and specialist will be prevailing practice.

### Notes

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### Text Material

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*Gesunde Medizin – Das Magazin für mehr Wohlbefinden* (<[www.gesundemedizin.de](http://www.gesundemedizin.de)>). Issue: September 2011.

Leipziger Volkszeitung Supplement: *Gesund*, Issue 2011/16:1-16. *Neue Post*, CD Internet-Führerschein® *Gesundheit*. (September 2011).

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*dm. Mein Rezept heißt dm*. (Werbeprospekt September 2011).

### Health Portals

#### German Health Portals

GesundheitPro.de (<<http://infoverzeichnis.org/gesundheitpro.de>>)

Netdokter.de (<[www.netdokter.de](http://www.netdokter.de)>)

Vitanet.de (<[www.vitanet.de](http://www.vitanet.de)>)

Imedo.de (<[www.imedo.de](http://www.imedo.de)>)

#### English Health Portals

<[www.nhs.uk](http://www.nhs.uk)>

<[www.healthsinsite.gov.au](http://www.healthsinsite.gov.au)>

<[www.publichealth.gc.ca](http://www.publichealth.gc.ca)>

<[www.healthfinder.gov](http://www.healthfinder.gov)>

<[ec.europa.eu/health-eu/index\\_en.htm](http://ec.europa.eu/health-eu/index_en.htm)>

<<http://health.discovery.com>>

