

From electronic publishing to print on demand: a South African case study

Magda Bornman; Johnson & Johnson Health Management Institute; jjhmi@pixie.co.za
Anseri Swanepoel; Anseri Art & Design

Summary

Managed health care has placed new demands on health education to the public because its success depends *inter alia* on the information provided to individuals. The individuals determine the content, format and level of information and whether intermediation is needed.

New methods of information delivery had to be designed to meet the needs of the individual and to contain costs. HEALTH ON CALL is a state-of-the-art health information system customised for the South African market. Information from HEALTH ON CALL is available 24 hours a day, verbally, electronically, or in paper-based format. Intermediaries make extensive use of online publications to provide the necessary information.

New publications on CD-ROM are developed to complement the present information resources. Eventually these will also be available electronically to all subscribers.

Introduction

Health care is considered a fundamental human right by many people. However, during the last couple of years, many changes have taken place in the health care industry. These changes have been brought about by the enormous rise in health care expenditure. During this time it also became apparent that doctors and patients took health care decisions in isolation from other factors and conditions, the results being duplication, inappropriate levels of health care and sometimes even incorrect treatment. In the past decade or so, the awareness of fundamental human rights and consumer demand brought about a new kind of consumer and this new outlook also had an influence on health care, especially regarding doctor-patient relations.

Managed health care

To exert some control over costs and quality, managed health care originated in the USA. Initially the focus was on those areas of health care with the greatest costs involved, notably, hospitalisation, medication and specialist examinations. It was, however soon recognised that controlling the cost and quality of isolated items would achieve neither the necessary long-term cost savings nor improved health. This led to a new approach which looks holistically at all aspects of an individual and his or her health.

Managed health care today aims at saving money and improving health. Cost-effective health management is dependent on the improvement of the health status and thus satisfaction of patients. The flipside of this coin entails informing and empowering people to take responsible decisions on health care, because some responsibility for satisfactory outcomes rests with the patient.

Health care in South Africa

Cost trends similar to those experienced in the USA are also prevalent in South Africa. Medical fund premiums are rising to the extent that the middle-class working person can no longer afford them. In 1994 members of medical funds paid out a staggering R12 500 million in fees, more than double the amount of 1990. The most recent increases in premiums amounted to an average of 30%!

The Government, with the limited resources at its disposal, is struggling to provide basic or primary health care to the vast number of disadvantaged groups and individuals. Some rural areas are still without basic medical facilities and service providers. Clearly such a situation could lead to either a drop in standards, or health care to a minority elite only.

Many new members joined medical funds during the past number of years. They come from all walks of life, and diverse literacy and educational backgrounds — a very important factor to take into account when delivering health care information to these people.

Good doctor–patient relationships remain a priority, although much is being done to direct medical care to the appropriate level. At Johnson & Johnson Health Management Institute, a partnership approach is advocated. But not only do we recognise the importance of the service provider, we also recognise the fact that the patient is in the first place the instigator and in the second place the beneficiary of health care. The patient is therefore the critical element in the whole process of health care, including the control of costs and quality of care.

Patient health education used to take place by way of paper-based publications. However, increasing publication, storage and distribution costs, diversity of clients and unacceptably long response times necessitated new methods of health education.

SOLUTION: HEALTH ON CALL

We believe the solution to some of the problems and difficulties of the South African situation lies in HEALTH ON CALL, because it informs and empowers people to use medical services knowledgeably, to monitor their own conditions, to benefit more from the interaction with their doctors, to remain healthy and to improve health and well-being. HEALTH ON CALL is an integrated system providing current South African health information that is easily accessible to and suitable for the layman. HEALTH ON CALL provides immediate health care information directly to individuals.

Clients

Our clients include medical funds and their members, corporate clients and registered individuals. Negotiations with clinics, health organisations, training institutions and employers are also under way.

Personnel

The various levels of literacy and education of our clients necessitates intermediation. Personnel employed by HEALTH ON CALL include qualified nursing staff, with sound clinical experience, as first-line facilitators. These health professionals are the information intermediaries who between them speak all of our eleven official languages and a few European ones. They are backed by professionals from eight different medical disciplines.

Information resources

The information resources available to the HEALTH ON CALL staff include the following:

- a5 Symptom, medicine and disease databases
- a5 *Healthwise Handbook*
- a5 Educational health modules
- a5 Stepwise self-educational packages
- a5 *Health Notes*
- a5 Quarterly newsletters

The first four are available online, while the quarterly newsletter is published in paper-based format and some of the *Health Notes on CD-ROM*. *At any time an end-user may request or the intermediary may decide on a printout of information as the most appropriate format.*

Access and delivery

Access to and delivery of health care information are available through a 24 hour, toll-free telephone line, mail, fax, e-mail, CD-ROM and in the near future Intranet and the Internet, in other words, information is available electronically, in paper format and verbally. Because of the diversity of clients, the system must be able to deliver all recorded information in all of these formats. At present all publications are available in English only. The importance of a intermediary for explaining terminology, medicines, etc. in the other official languages cannot be over-emphasised.

To conclude we would like to demonstrate two of our electronic resources, the first being the *Healthwise Knowledgebase* and the second a *CD-ROM containing one of our Health Notes*.

Healthwise Knowledgebase

The Healthwise Knowledgebase is a comprehensive online database, giving health care information in layman's terms via a user-friendly interface to all HEALTH ON CALL clients.

As soon as a request for information is received (except in an emergency when the emergency is dealt with first), the particulars of the end-user are logged. Telephone numbers, postal, fax and e-mail addresses are recorded for sending information and follow-up purposes. The information needed by the end-user is then supplied.

For example, a person may be complaining of lower back pain. From the table of contents, the intermediary will click on 'back and neck pain'. The secondary contents list includes back pain. In the first section of back pain, an overview of the problem is given in layman's terms. Wherever terminology may not be clear, an option for further explanation is given. Printing on demand is available for all the sections of this document. Further sections include prevention of the problem and, at another level, incorrect sleeping position. Information on exams and tests, preparations for visits to doctors and self-care is also available.

By giving an end-user this kind of information, HEALTH ON CALL empowers the individual to participate meaningfully in the control of cost and quality of health care.

CD-ROM

We have also embarked on the production of interactive, multimedia CD-ROMs in collaboration with the Anseri Art & Design studio. We have had a number of

prerequisites regarding the CD-ROM:

1. It must be extremely easy to use.
2. The publication must optimise the benefits of electronic publishing while conforming to good publishing standards.
3. It must be possible to print information from it on demand, either as a complete document or screen by screen.
4. It must be easy to convert the publication for use on the Internet.

To fully optimise the benefits of electronic publishing, a thorough study was made of the text to identify the possibilities regarding the layout, hierarchy, linking, graphics and picture inclusions, etc.

The studio designed this CD-ROM publication, entitled 'Insomnia', which forms part of our *Health Notes*.

As can be seen, excellent design and uncluttered pages characterise this publication. Printing can be done on demand and HTML facilitates World-Wide Web accessibility.

Biography - Magda Bornman worked for a number of years at the Bureau for Scientific publications where she was publishing editor of inter alia the South African Journal of Library and Information Science. In 1995 she left the Bureau to join the managed health care company that later merged with Johnson & Johnson Health Management Institute. At present she is manager of communications and responsible for published information on health care to approximately 350 000 families.