

What is BETTERHEALTH *record*?

A comprehensive electronic patient health record

BETTERHEALTH *record* is a patient-centered, comprehensive tool to store, manage, retrieve and share all the information you need in a patient's medical chart. Most importantly, BETTERHEALTH *record* provides clinical analysis of patient data that is too timely or costly to do with a manual paper system. BETTERHEALTH *record* is completely user configurable to the specific needs and preferences of the individual physicians, specialties and practice without custom programming. With the combination of administrative and clinical abilities, BETTERHEALTH *record* saves you time and helps you help your patients.

An intelligent filing system

BETTERHEALTH *record* is an intelligent filing system. At its most basic level, it works like a paper filing system, but without overstuffed files and bulky cabinets. The intelligence and flexibility of BETTERHEALTH *record* makes it truly unique. BETTERHEALTH *record* helps you with administrative tasks of collecting, storing, and retrieving patient information faster than paper files. It provides all the audit and security tools required to meet HIPAA privacy requirements.

A clinical data integration system

The Data Exchange Module included in BETTERHEALTH *record* is a flexible and easy to use tool to import and export clinical information from a variety of disparate sources and formats thus greatly reducing the cost of interfaces and duplicate data entry.

BETTERHEALTH *record* Patient Health records can be easily transported or shared in part or in whole with other authorized providers regardless of the customizations selected by any user. Data can be transferred to other BETTERHEALTH *record* users or easily exported and imported in a variety of industry standard formats.

A clinical data repository

BETTERHEALTH *record* also provides a powerful data repository for collecting and sharing patient clinical data across an entire enterprise or community. Its extensive ad hoc reporting and query language allows extensive data mining or you can use your own programs to access the data easily and efficiently.

A mobile, personal desktop/portal

BETTERHEALTH *record* comes with an electronic desktop that integrates all the content, references, applications that you use on a daily basis. It is accessible with a single sign-on from any location you work.

HOW BETTERHEALTH *record* Works

Just like a paper record system, but easier!

The advantage of BETTERHEALTH *record* is in the diversity and complexity of its internal design . . . but this is something you don't have to think about.

BETTERHEALTH *record* is structured so that you won't be bothered with complexity or limited in the way you capture and store patient data.

At its core, BETTERHEALTH *record* consists of three basic levels of information. These are the *record*, the *transaction*, and the *item*. Each is described below.

Record

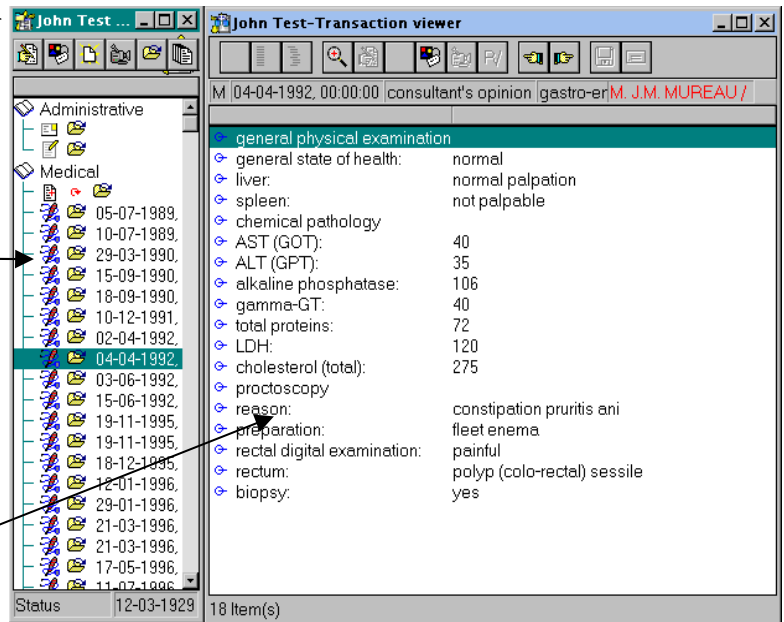
The record is like a patient's chart. Every patient equals a record. The entire screen to the right reflects a patient record.

Transaction

Each record contains transactions which are used to capture data associated with an event or a clinical report. In the example, transactions are listed in chronological order but they can be filtered and listed in any order you wish.

Items

Items are the smallest pieces of information. Every transaction includes a variety of items. This can include things like a patient's weight, height, primary diagnosis, blood pressure and thousands of other individual pieces of data pertaining to that patient. An item can even be an image or an entire document such as a transcription.



Viewing your information

As the previous example shows, each record will show the transactions in outline form by chapters (e.g. administrative, medical) and in order selected by the user such as chronological. Additionally, all transactions belonging to one specific episode of care such as a hospital stay can be grouped, with the possibility to "open" or "close" each of the successive stays.

A customizable selector further allows presenting only a specific subset of transactions. The selection criteria include amongst others: author, medical specialty, institution and department. This function offers an excellent and powerful way to quickly see an overview and to access pertinent data even in huge patient files.

Create new records quickly

BETTERHEALTH *record* makes creating a new patient record simple and fast. You specify the minimum data elements to uniquely identify each patient. This can include, but is not limited to, Social Security Number, Medical Record Number, Patient ID from a practice management system or a combination of criteria such as first name, last name, sex, and date of birth as required by local regulations. Once it is set by you, BETTERHEALTH *record* will automatically prompt for these criteria, to which it will automatically add a unique internal identifier.

Collect and manage the information you require

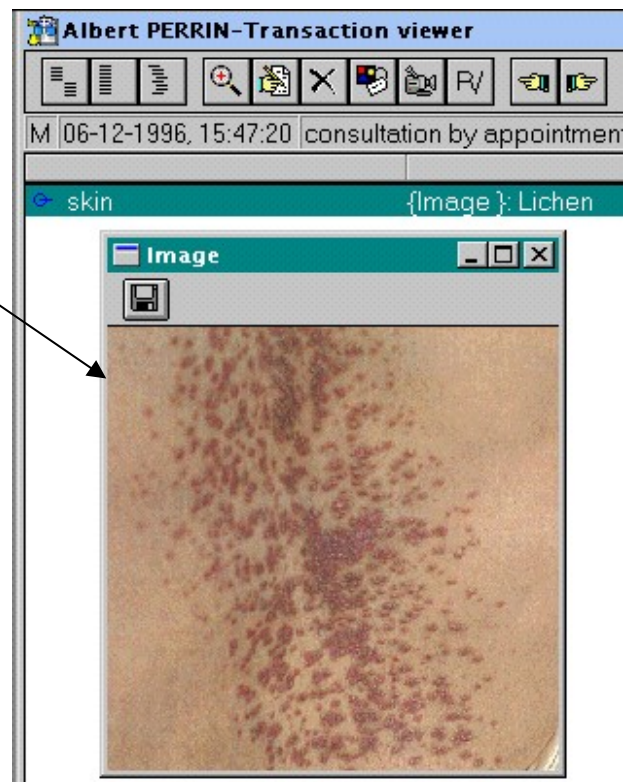
BETTERHEALTH *record* allows you to capture a variety of data types including numeric, text, external text, treatment schedules, and any type of multimedia object such as ECG, video, image scanners, and sound recorders.

Permanent and associated lists are features of BETTERHEALTH *record* to help the ease and speed of data entry and to assure consistency of the medical documentation within healthcare teams. Permanent lists are lists of contents that are always available for any item. Associated lists are lists of terms that can be linked with one or several items. *Cascade lists* in form of logical networks on several levels enhance the ease and speed of data entry (e.g. "auscultation of the lungs: *coarse crepitations, basal, right*"). All of these lists are completely customizable by the user.

Capture images

BETTERHEALTH *record* allows for the collection of numerous kinds of information, including text, numbers, audio, video, and still pictures. For example, photographs of the skin can be stored within a patient record for view later by other physicians.

This data may come from a database (CD-ROM, Internet), your own input devices (scanner, camera), a diagnostic instrument interface or simply from an application enabling you to sketch lesions. Any object, once integrated, is an integral part of the healthcare record, and may be displayed at any time.



Link important pieces of information

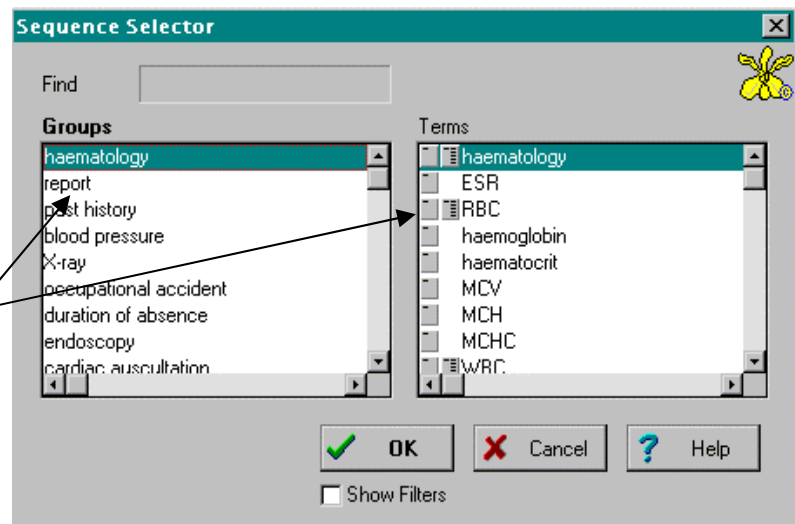
BETTERHEALTH *record* supports the creation of links between specific items and *external databases*, e.g. national or international disease or diagnosis or procedure codes. BETTERHEALTH *record* also allows the user to integrate any type of *multimedia* object as part of an item content, e.g. picture of a skin lesion, an entire ECG recording.

BETTERHEALTH *record* also offers a number of *attributes* that can be used to describe items. This increases the detail and precision of recording data, e.g. for **measurements**, BETTERHEALTH *record* can specifically record *units*, *reference range*, and *degree of abnormality* (scaled from 0 to 7).

Automate data capture

The same series of items is frequently needed for clinical documentation. This is the case, for example, with administrative data, past medical history, consultations of a given type, technical examinations. With BETTERHEALTH *record*, such items can be grouped into customized “sequences.” This way, you only have to set up commonly required item once, and have them available for subsequent patient visits. Sequences are easily defined and customized by the user

Sequences present the items as a simple list. They may contain up to 100 different items; BETTERHEALTH *record* allows up to 15 different *administrative* sequences and up to 60 different *medical* sequences to be created in each configuration



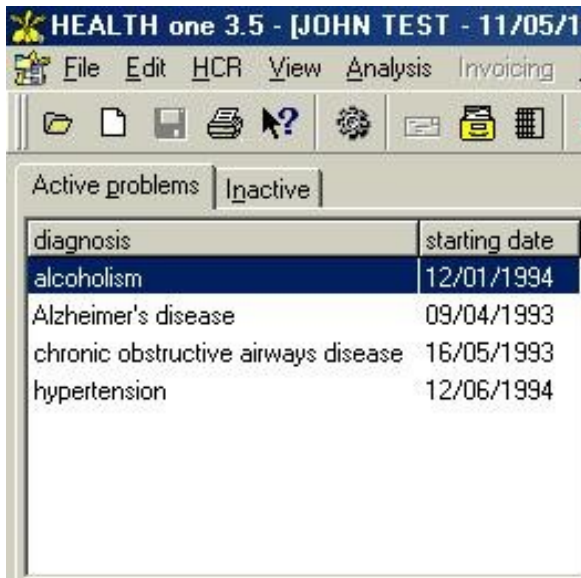
Clinical Information First

Managing the information that matters most!

The focus of BETTERHEALTH *record* is on clinical management, as opposed to administrative management. BETTERHEALTH *record* is designed first and foremost to help you manage clinical information and processes critical to your practice. In addition, it provides the administrative functions like simplified letter writing and ad hoc reporting that will help you manage your patients' health.

Problem Orientation

BETTERHEALTH *record* has a feature called Problem Orientated Medical Records (POMR) which provides the ability to link transactions to a medical problem (or condition). Once linked in this way the physician can see at a glance the patient's primary problems and elect to view only those transactions, which relate to a particular problem.

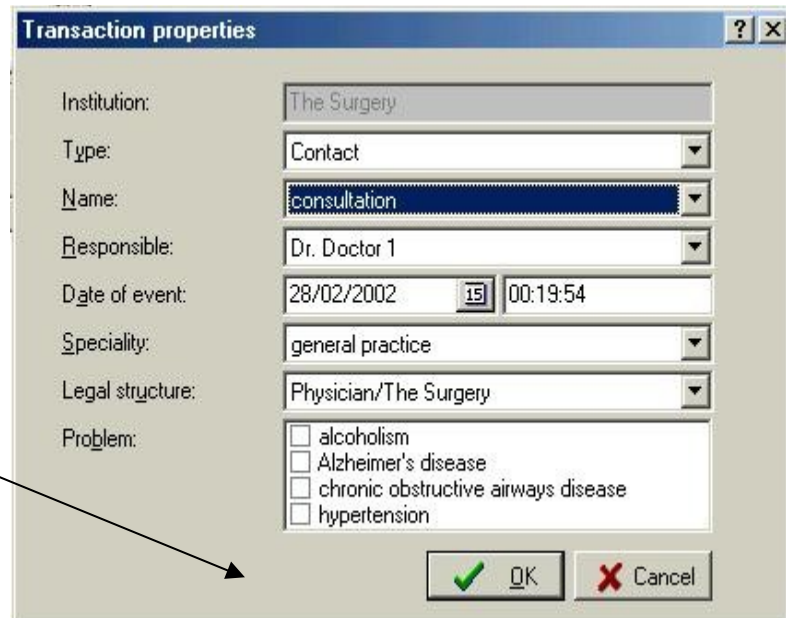


Problem Panel.

Problems appear in the Problem Panel in the BETTERHEALTH *record* screen. This panel has two tabs - one to display the active problems and the other to display the inactive problems.

Medical Transaction with patient problems.

Whenever you insert a new medical transaction into a patient's file BETTERHEALTH *record* displays its properties window. Problem is one of the attributes in the transaction properties window and all the declared problems for the current patient are displayed there.



Anyone - Anytime - Anyplace

Support all practice needs

BETTERHEALTH *record* is designed for all healthcare environments and all languages. This means that it can be used equally by general practitioners, specialists, nurses, and other healthcare providers. BETTERHEALTH *record* is applicable in all sizes and types of healthcare environments. For example, BETTERHEALTH *record* meets the needs of a single physician working out of a single office, or the needs of hundreds of healthcare professionals working together in a large group practice setting. BETTERHEALTH *record* can even enable effective clinical integration among separate practices in affiliations such as an independent physician association (IPA).

More importantly, BETTERHEALTH *record* tailors the layout of the same information for different users, reflecting different consultative styles and settings.

The screenshot displays the BETTERHEALTH record software interface. The main window shows a medical transaction for a patient named John Abbott, born 30/03/1963, aged 40 years. The transaction is dated 04/08/1999. The SOAP notes are as follows:

- reason for encounter:** follow-up hypertension
- subjective symptoms:** headache mild; slightly better since last consultation, but still present
- objective findings:**
 - systolic blood pressure: 160
 - weight: 112
 - diastolic blood pressure: 100
- assessment:** labtests: normal; exclusion of endocrinological origin; exclusion of noradrenalin origin; ECG + X-ray chest: left ventricular hypertrophy; Diff. Diagn.: - essential hypertension; - art. renalis stenosis
- plan of action:** start therapy: indapamide (Iudex) 1 tablet / day; follow-up: 1 week
- drug prescription:** urgent
- referral request:** doctor: Jeff Boulton; address of insurance company: Madonna Medical Group; via: M-07; Radiological center - Seattle; date of case conference: 20/08/1999; time: 14:00
- diagnosis:** hypertension
- treatment prescribed:** MRI scan art. renalis
- date of surgery:**
- comments:**

The interface also shows a list of transactions on the left, including administrative chapters, medical chapters, and various medical specialties like general practice, internal medicine, and radiology. The right side of the screen displays a 'Past Surgical and Medical History' section with items like appendectomy, gastric ulcer, and renal stones, as well as 'Adverse Drug Reactions/Allergies' (PENICILLINS, Aspirin, iodine, cat hair) and 'Current Therapy' (Pebvac - P&P, Mammogram, Rectal exam, Stool Guaiac, PSA, PPD). The bottom status bar shows '04/08/1999 | 36 Years | Consultation | Internal medicine | Dr. Frederik Brabant'.

Multi-lingual support

BETTERHEALTH *record* automatically translates information at the touch of a button when viewed by physicians with differing language preferences. This includes English, Spanish, German, French, and Dutch, and will soon be available in Italian, Greek, and Danish.

Confidentiality and Security

Ensure patient confidentiality and track events

BETTERHEALTH *record* supports a variety of security measures that meet the demanding requirements that health information requires. With BETTERHEALTH *record*'s role-based security, different levels of security and access can be provided to different healthcare professionals within your practice depending on the information they are permitted to view, enter or change.

Validation of a transaction permanently applies it to the patient's record and is done under the responsibility of the responsible professional, the author of the information or someone to whom he/she delegates the responsibility (sets of privileges can also be implemented). Once validated, BETTERHEALTH *record* will not allow this information to be deleted or overwritten under any condition. Only authorized users (i.e., the Author or delegated person) can amend existing information which will be stored as new, amended versions of the original transaction, while retaining the previous version(s) for audit trail. The system always records the author, institution, department, date, etc. so that audits can be conducted as necessary to track who accessed which health records and when.

Analysis

Managing patient health through data analysis

The real power of BETTERHEALTH *record* is in its ability to provide you with quick and accurate analysis of patient clinical data. This allows you to analyse patient data using certain filters in order to get a broader picture of a patient health and progression.

For example, BETTERHEALTH *record* will display the development of an information item, in this case the liver. Thus, having noted the patient's liver palpitation one wishes to see how it has been in the past, this function will show it instantly. This applies to any blood test, clinical finding or any other item in the patient's record..

Date/Time	Findings
05-07-1989, 00:00:00	normal palpation
15-09-1990, 00:00:00	tenderness
02-04-1992, 00:00:00	normal palpation
04-04-1992, 00:00:00	normal palpation

See the big picture

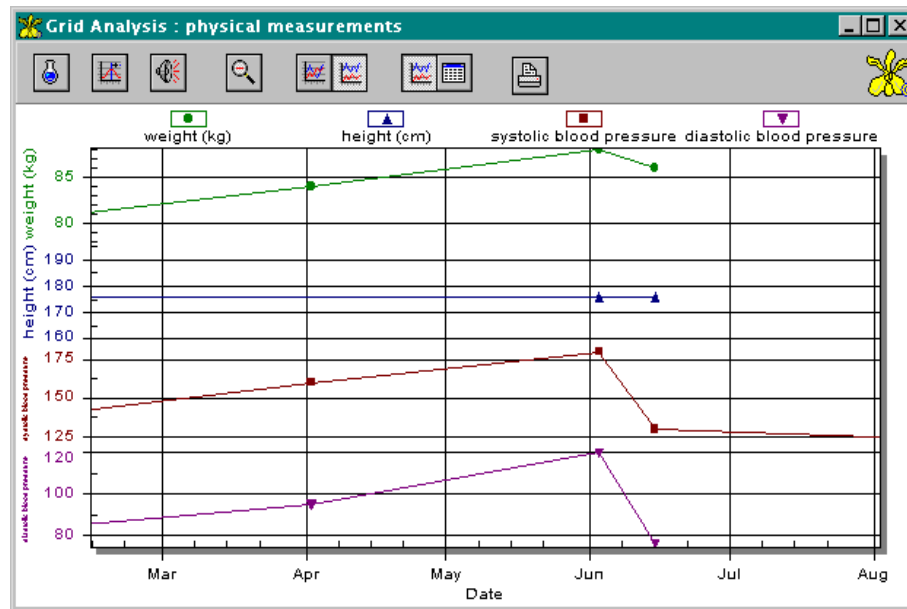
The grid analysis allows you to present the chronological evolution of a set of values. BETTERHEALTH *record* enables you to create up to 64 different grid analyses of relevance to your specialty or work practice.

Items suitable for inclusion would be for instance: haematological results, pulmonary function tests, physical measurements, and ECG parameters.

Grid Analysis : physical measurements					
	05-07-1989	02-04-1992	03-06-1992	15-06-1992	21-03-1996
weight (kg)	78	84	88	86	
height (cm)	176		176	176	
systolic blood pressure	123	160	180	130	120
diastolic blood pressure	75	95	120	76	
peripheral arteries					
pulse (/min)					

Graph analysis to view health patterns

Numeric data can be displayed as graphs, using a variety of presentation styles: dots, lines, bars. Each graph can simultaneously display up to 6 item value axis with their own adaptable scale and display style



Population analysis

There are very diverse functions committed to handling the data of groups of patients. For example, make a list of all the patients taking a particular medication, write to all the patients who are entitled to get their anti-flu vaccine the following month, calculate the number of times a particular procedure was carried out the preceding month, or follow-up with all patients who have not received a scheduled test.

Share Information

Work remotely and with other healthcare providers

Healthcare records created in BETTERHEALTH *record* are easily transferred to any other BETTERHEALTH *record* installation regardless of the customizations that were implemented in each. This means you can visit patients down the hall, across the street, or across town in their own homes. Information collected on a portable computer can then be easily transferred to a main computer at a later time. All patient information collected remotely will automatically updated into the patient's record with a click of a button.

Word Processing

Automate repeat, everyday tasks

BETTERHEALTH *record* can create, store, and execute “document templates”, filling it with patient data retrieved directly from the patient record. The document can be stored in BETTERHEALTH *record*, edited by another word processing program or stored in a separate place with a link to BETTERHEALTH *record*.

Transcription Interface

Similarly to the BETTERHEALTH *record* internal word processor, BETTERHEALTH *record* integrates directly with Microsoft Word® passing it patient data and storing resulting documents in the Patient's record. This close integration allows your practice to streamline the transcription process with notes and reports stored directly into the BETTERHEALTH *record* record.

Dictionaries

Increase the speed and accuracy of charting and analysis

To facilitate the highest level of codified data for detail analysis across populations of patients, BETTERHEALTH *record* offers as a standard feature two types of internal dictionaries.

The item dictionary lists the names of all the available information items (i.e., weight, sex, chief complaint, etc.) In all, more than 4,000 items are listed in the dictionary. This allows you to use any of these item names to capture clinical and administrative data in your patient's record, maintaining continuity in each record.

The term dictionary lists more than over 8,000 medical terms and expressions.

Items and terms used from the dictionaries can be automatically translated and displayed in other languages at a press of a key.

The Drug Prescription

Quickly record the finest detail of prescription history

Prescribing drugs is probably one of the most complex and information-rich functions in healthcare. BETTERHEALTH *record* offers a Prescription Module specifically designed for combining speed and ease of use with the ability to record the finest details of the prescription history and administering those drugs throughout the episode of care.

The BETTERHEALTH *record* Prescription Module offers the following components and facilities:

- fast search function in the data bases, using a variety of criteria:
- automatic presentation of drug details (ingredients, dosage, contra-indications) for selected drugs
- automatic integration of drug details into the prescription items
- automatic issuing of prescription forms
- patient drug history
- list of active drugs

Combine predefined drug formularies with your own unique drug information

BETTERHEALTH *record* includes a highly structured set of drug files that can be populated with data from various sources such as user-defined data, nationally published or institutional drug formulary (e.g. at hospital level).

Even when using data from an external source, users can add their specific details (e.g. usual dosages, schedules or comments) in the drug files. This contributes greatly to making complex prescriptions a fast and easy process.

The screenshot shows the 'Prescription' window with the following details:

- MAIN Tab:** A list of drugs including ATTENUVAX (C), AUGMENTIN 125 (C) 125-31,25 MG 5ML, AUGMENTIN 250 (C) 250-62,5 MG 5ML, and AUGMENTIN 500 (C) 500-125 MG. The last one is selected.
- Right Panel:** 'Comp. per : 1 tabl.', 'Amoxicillinetrihydraat 573.958 mg', 'Potassium clavulanate 148.907 mg', 'Max.Dos.: adults 3x2 pd', and 'Max.Dos.:Children 2-12 j.: 3x20 mg/kg'.
- Bottom Right:** 'R / AUGMENTIN 500 (C) 500-125 MG', 'DT / 16 tabl.', 'S / x /', and a 'System' menu with 'Cancel all', 'To Disp.', 'Pr. Forms', 'Search', 'F1: Help', and 'Exit'.
- Bottom Left:** 'Logging of prescription actions' section.

BETTERHEALTH *record* can record all of the most detailed information about every prescription, including, but not limited to drug code, composition, dosage, schedule, special instructions, duration, etc.

Storage Capacity

A system that grows with you

BETTERHEALTH *record* imposes no limit on the amount of information maintained in the system. This enables lifelong longitudinal healthcare records. Because the actual limit of storage space is based on the computer hardware used, you can increase or decrease capacity as your needs require.

Technical Details

*What makes BETTERHEALTH *record*® Special?*

BETTERHEALTH *record* is a 32-bit program that runs on personal computers and servers equipped with Windows® 95 or later. BETTERHEALTH *record* can be installed on Novell® or Windows NT® local area networks. The application and data can be hosted on different servers depending on your organizations needs and network configuration.

International Standards

BETTERHEALTH *record* is designed so that whatever the level of customization by one user, patient records will always remain compatible with that of other BETTERHEALTH *record* users throughout the world. This is because the software is designed around international standards that promote four main areas: flexibility, portability, clinical detail, and security. Our software development subsidiary, Health Data Management Partners are actively involved in international committees and projects that seek to create and maintain such standards.

The architecture of BETTERHEALTH *record* is based on the first European standard on Electronic Healthcare Record Architecture (CEN TC251 ENV 12265, 1995). The architecture further incorporates concepts proposed by the “Good European Healthcare Record” (GEHR).

Finally, the detailed granularity of our architecture enables the conversion into BETTERHEALTH *record* of messages based on any type of format (e.g. HL/7, ASTM, and Euclides).

The Options are yours

Select the system that best meets your needs

BETTERHEALTH *record* **Single User** can be installed on a stand-alone personal computer (PC) or on a local PC network in support of a single user. It offers all BETTERHEALTH *record* functions and can directly access up to 20,000 individual healthcare records, stored on the PC hard disk or server. The software may be installed on a desktop computer and a portable PC to working at off-site locations such as at home or patient home visits.

BETTERHEALTH *record* **Practice** supports teamwork such as in group practices and hospital departments. It must be installed on PC networks and can directly access unlimited network server. It offers all BETTERHEALTH *record* functions, and allows the customization of several working environments (“*configurations*”) matching the various functions of the team, e.g. reception, nursing, physician assistant, diagnostic technician and physician.

BETTERHEALTH *record* **Enterprise** allows for use in large integrated healthcare environments such as large hospital networks or multi-site group practices. Common patient records can be accessed from different sites through a client/server. The clients can be of the “single user” or “clinical department” type; they offer all BETTERHEALTH *record* functions on the workstations. The server can be adapted to the specific requirements of access and capacity.

For More Information

Contact **BETTERHEALTH Global (USA)**

We are so confident in **BETTERHEALTH record**[®], we encourage you to compare it with other health management software. Indeed, with such an important decision like this, we wouldn't expect anything else.



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