



Kingdom of Bahrain  
Ministry of Health

HID  
INFO  
line

## Wireless Computing In Healthcare

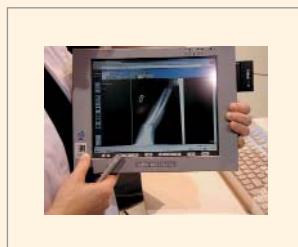
**By: Ebrahim Al-Nawakda\***

Eight years ago, many of us would remember, Salmaniya Medical Complex, and some other Ministry sites were connected through a proprietary P-LAN network. Healthcare and administrative staff used dump terminals to access a mammoth Health Information Computer mainframe!. This was located at the old Bahrain Health Information Center (Currently HID). Since the computer technology have advanced so rapidly that keeping pace with it has been the concern of all.

In the Healthcare industry, with the introduction of new computer hardware and software, the improvement of patient care can be much more easily attained. Wireless networking, and computer hardware equipments such as notebooks, palm PCs, and the recent introduction of the Tablet pc, can significantly change how our healthcare professionals deliver care to patient.

Currently, in the Ministry, Local Area Networks connects the users' PCs to the Health Information System and other applications through a 10MBPS (Million Bits Per Second) Ethernet cable. This infrastructure restricts the users of the network to a physical location to enter Data and more importantly obtain information. Such setup in many instances constrain the physicians who are mobile for most of their time. But with the introduction of wireless network this is no more the case.

Patient care can move with the patient. Rather than make a patient with chest pains go through the registration process in the waiting room, he or she can be taken right into the treatment room and register while receiving treatment. Currently, nurses take vital signs on paper, then enter them into the computer manually. On a busy night, this process can take several hours. A doctor treating that patient might not have the most up-to-date vital signs when making a treatment decision. This can all be overcome or at least improved significantly. With Wireless networks, and the Tablet PCs the LAN, healthcare staff will eventually do everything from registering incoming patients at remote clinics to using wireless optical scanners to copy patient documents so nurses can access them via tablet computers at patient bedsides. Also, Computerized order entry, will allow physicians to instantaneously review vital patient information and electronically place orders for care at any time from anyplace at the hospital or health center.



Tablet PC

*...Cont. on page 3*

## Health Statistics 2002

**Prepared By: Amal Al-Arrayed\***

Health statistics and Health Informatics play a major role in today's world, especially with the great changes that are currently occurring all over the world in telecommunications and information technology. His excellency Dr.Khalil Hassan the Minister of Health announced that "the provision of Health care requires proper planning of health services and follow up on health plans. These requires the availability of sufficient data and data analysis to provide accurate information necessary for decision makers and program managers to develop their plans and polices. Planning is thus a translation of the available information". For these purposes, The Ministry of Health makes much efforts and devotes a special attention to strengthen Bahrain National Health Statistics and Health Informatics.

Dr. Abdul Aziz Hamza the Ministry Undersecretary added " It is our pleasure to present the 22nd Edition of the Health Statistics report - 2002, which, illustrates the on going changes in the services and programs in healthcare sector. The information in this report provides details on different goals of systems in the Kingdom of Bahrain, and the outcome of the services reflected by the trends in the health status of the population in Bahrain".

The Health indicators presented in the report were based on The National Health Indicators recommended by World Health Organization which aim to implement the following goals:

The demographic data presented in the report, Population growth, and their distribution by sex and age reflects directly the Health Status in the Kingdom. In addition to that it is



Lunching of the health statistics book



Presentation on the content of the Health statistics book and the most important health indicators

considered as a good instrument to measure their health demands.

Assemble, compile, and publish comprehensive National Health Statistics for all the services provided in the Health Institutes in both government and private sectors.

To Facilitate data provision and accessibility for all health professional in the health field.

To utilize the information in decision-making and Health Planning.

To form a unified framework and standardized the publication of all the Health Statistics between all the health institutes in the country.

The report consists of eleven chapters. Chapter one shows a summary statistics of all Health indicators for the Kingdom. The chapter covers all the main health indicators such as the socioeconomic & demographic characteristics, health resources, utilization of Health Institutes, and health status. Chapter two presents selected tables that show basic results out of the 2001 census and estimated population for the year 2002. Chapter 3-9 focus on resources, facilities services, vital, morbidity and mortality statistics. Finally, chapters ten and eleven present some statistics of the Bahrain Defense Force Hospital and Private

Hospitals. Data of Ibn Al Nafees has been added in this edition.

To enlarge the audience whom can benefit from the Health Statistics report, the Health Information Directorate continued on providing an electronic access to the updated health statistics. Therefore, the Health Statistics 2002 Report is available on the Ministry of Health Website [www.health.gov.bh](http://www.health.gov.bh). In addition to that the information is available on CD's for all users. For those who are interested to get their own copy, contact us on the following address:

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The undersecretary concluded his talks by conveying his appreciation to all the participants for all the efforts spent in providing their information and for their continuous support and commitments toward improving the quality of health care delivery.

\*Amal: Senior Technical Writer

## What is a password ?

**By: Ebrahim Adam**



According to [www.dictionary.com](http://www.dictionary.com) site the password is "A secret word or phrase that one uses to gain admittance or access to information." "A password is typically somewhere between four and 16 characters, depending on how the computer system is set up. When a password is entered, the computer system does not display the characters on the display screen, in case others might see it."

There are variety of password types. There is the admin password where it gives the administrator of a system the full access to all resources. The full access password gives the user the right to read and change files and resources while the read-only password allow the user to read a file and not to change it. The Single-Sing-On password allow the user to access more than one system using one userid and one password.

Talking about passwords does not seem to be important for the first time. But it is very important to talk about passwords as they are the first defense wall in any security system. A system is considered the weakest even if surrounded by the most sophisticated firewalls when its users tend to choose weak passwords. In other words, a system is considered weak in terms of security if users of that system used to choose easily guessed passwords. Examples of easily guessed password are name of son or daughter or words that are easily found in dictionaries.

Password should be chosen not to be guessed easily and not difficult to remember so someone write it down on a piece of paper. Users should not disclose passwords to anyone including support staff of an IT department. This point should be clear enough in any security policy. In the same line, password should be given to the users in a way that can be read only by the owner of this password.

\*Ebrahim: Senior Software specialist

...Cont. on page 1

## Wireless Computing In Healthcare

In coordination with Salmaniya Administration, HID has been conducting presentations and hands trials on these technologies. Presently, a 10MBPS wireless network has been setup at HID and a Tablet PC and a Palm device are loaded with a sample health application to illustrate the versatile and efficiency of this new technology.

The Tablet PC is about the same size as a standard sheet of paper and much smaller and lighter than a laptop and can be used as a portable unit with a retractable keyboard or on its own with a digital stylus (pen). Key features are:

### *Flexible*

The Tablet PC provides the full power and functionality of a PC or a notebook PC, with the additional options to use a digital pen or even voice recognition to take notes or /and enter data. Digital Ink technology also empowers handwriting-enabled applications, allowing users to write and draw naturally, or convert their notes to text and input information on the spot.

### *Mobile*

Light weight (approximately = 1.5KG) and about the size of an A4 pad, the Tablet PC is both small and lightweight enough to carry around.

Of course, such technologies will be set as requirements of the MHIS (Ministry of Health Information System) Project. Indeed, its foreseen by the healthcare industry that the introduction of these concepts would significantly improve the way we provide care to the patient.



Tablet PC

\*Ebrahim: Head of Technical Support Unit

## Be our guest...!

By **Fakhriya Hashim\***

Mrs. Basema Al-Salman, Pharmacist at the Pharmacy and Drug Control Directorate (P & DC), is our guest for this edition to brief us on the activities of Drug Control System.

She started her talk saying "the P & DC Directorate is considered the gateway for importation of medical substances into the kingdom. These medical substances cover a very wide scope of products including drugs, health food products, narcotics, borderline substances ...etc".

She added that "registration of manufacturers is the first step followed by product registration. These follow international systems of guidelines. Analysis of products take place according to a confidential protocol. All products bought by any outlet is controlled by these systems including Ministry of Health and Bahrain Defense Force purchases. Licensing of pharmacy outlets and practicing pharmacists, medical representatives and heads of scientific officers are also controlled by this directorate. Pharmacists' licenses are given bi-yearly after conducting qualification examinations for these candidates".

Personal parcels and all invoices of medical products are not released unless given permission by this directorate.

Adverse drug reaction follow-up is dealt by in this directorate after collecting the data from the health sector.

All Kingdom estimates and use of narcotics and psychotropics are channeled to UN by P & DC Directorate. Inspection of pharmacies is done by qualified pharmacists on regular basis.

Since the Directorate was keen to computerized its activities, an automated system implemented in 1999 using Oracle Database in co-ordination with the Health Information Directorate (HID).

At the beginning of the implementation, HID and P & DC worked hard to ensure that the concerned personnel are fully aware of



Isa Town Health Center pharmacy

how the system works by providing the necessary training, monitoring and measuring procedures for the required work.

The main business area covered are: companies, pharmacies, pharmacists, and drug registration and renewal. Import and consumption of narcotic and psychotropic.

As a result of the above automation, she said that:-

1. The registration and license renewal of drugs can be tracked.
2. Better making of Narcotic and Psychotropic.
3. Faster data accessibility can help the P & DC directorate in controlling the post marketing problems.

She ended her talk saying "the efforts made in the past between the two directorates should continue to provide better services to all patients and others in the kingdom".

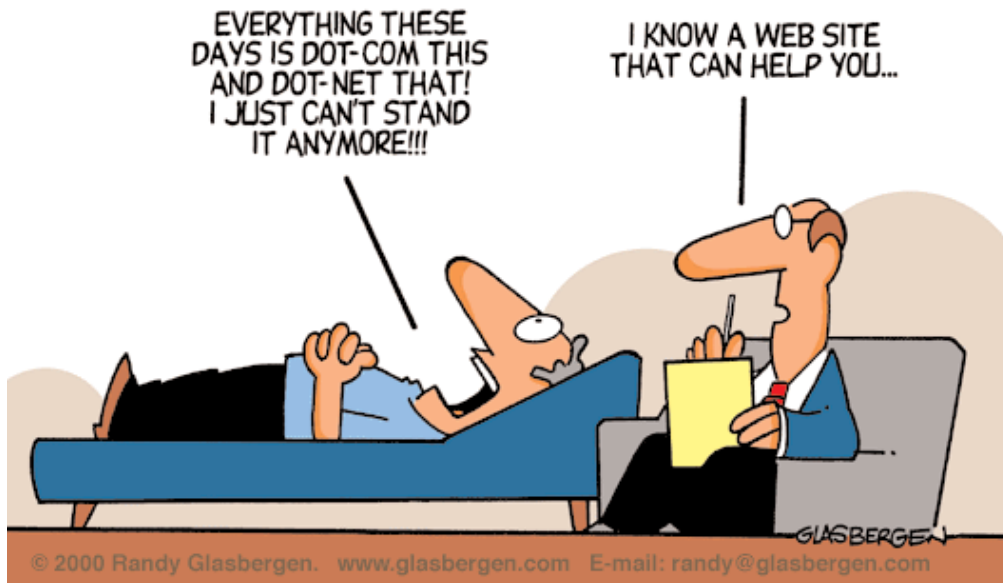
\*Fakhriya: Administrative Analyst

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**A WEB SITE TO VISIT**

**Leadership Page:**

A resource site that offers articles and links exploring numerous aspects of leadership. This leadership guide is for new supervisors, managers, leads, and anyone wishing to move up through the ranks as a leader, please visit the following site:

<http://www.nwlink.com/~donclark/>

KEEP IN MIND

WISDOM HAS TWO PARTS  
HAVING A LOT TO SAY,  
AND NOT SAYING IT

**MOH Intranet search competition .....!!!**

What is missing from the empty ellipse ?

1	N	3
2	F	1
2	C	

To encourage use of MOH Intranet site, the solution to this quiz is posted on the web site.

<http://intranet.health.gov.bh/>

Send the answer no later than 12/09/2003 addressed to HID Editorial as shown below, either by post or email, and get the chance to win a prize.

Last issue winner: Mr. Mohammed Al Shahabi, Health Information Directorate.

**Surveys**

HID help desk with the support of HID management conducted a first HID help desk survey for a purpose of measuring the MOH staff satisfaction. This survey will enable the help desk management to overcome the weaknesses and improve the services. We would like to thank and appreciate all the respondents for giving time to answer and fill the questionnaire form. The graph shows few findings. For more information refer to <http://intranet.health.gov.bh/reports.asp>

